CAVALRY IN FUTURE WARS

GEN. VON BERNHARDI

TRANSLATED BY
C. S. GOLDMAN

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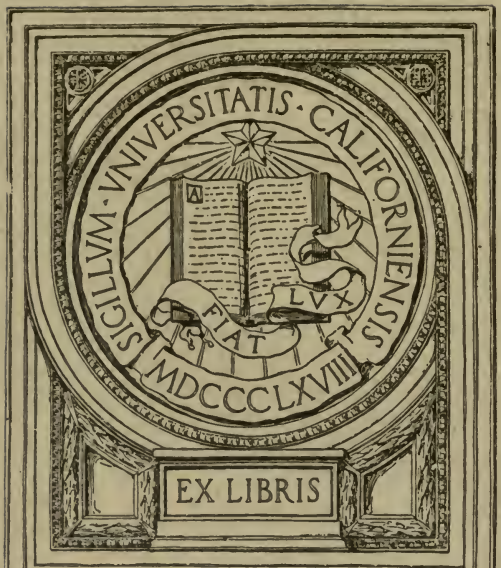
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CAVALRY IN FUTURE WARS

CAVALRY IN FUTURE WARS

BY HIS EXCELLENCY LIEUT.-GENERAL
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COMMANDER OF THE SEVENTH DIVISION OF THE GERMAN ARMY

TRANSLATED BY CHARLES SYDNEY GOLDMAN
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WITH AN INTRODUCTION BY
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NEW YORK
E. P. DUTTON AND COMPANY
1906

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PRINTED IN GREAT BRITAIN

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CALIFORNIA

PREFACE

I VENTURED to express the opinion in my book, 'With General French and the Cavalry in South Africa,' that if a high ideal of the duties and possibilities of Cavalry is set before our officers, and the means of instruction and training are placed within their reach, we shall possess in our next great War a force which, if led by men of the stamp of General Sir John French, will prove to the world that the day of Cavalry is far indeed from being past.

In other words, I am convinced that, with good leadership and the right material in men, which the South African War has shown we possess, all that we need to perfect our system is a proper recognition of the changed conditions of modern Warfare, and a resolve to break with the old and adapt ourselves to the new situation.

Reforms such as this would necessitate must affect all arms of the Service, but no branch more than the Cavalry, whose task in future will be more difficult, yet whose compensation lies in the possibilities of successes possessing greater significance than any hitherto attained.

The South African War has roused the Cavalry into a renewal of activity, and has caused their leaders to encourage the study of Cavalry literature likely to

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develop the capacity of the officer for writing on these special subjects.

As a step in that direction, I gave whatever little co-operation I could to the formation of the *Cavalry Journal*, in the hope that it may be conducive to the creation of a class of literature in which our Service is peculiarly deficient.

It is of the first importance to realize the conditions that are revolutionizing the conduct of modern Warfare.

Such knowledge can alone enable us to appreciate the task which is given to the Cavalry, and to estimate the increased difficulties of their function. As their range of activity has become restricted in certain directions, their sphere of usefulness in others has largely increased.

The want of an up-to-date work dealing with these facts has, I believe, been supplied by the recent publication of General von Bernhardi's book, 'Our Cavalry in Future War,' translated in the following pages with the object of making it more generally known in this country.

Not only is the contribution valuable as having been written by a soldier of experience in the field, who has imbued his work with the dash and fire of the spirit of Cavalry, but it also reveals a profound insight into the modern conditions of War and the heightened demands exacted from Cavalry training. The author lays continual emphasis on the fact that Cavalry trained and organized on his lines should produce in the early stages of a War effects so decisive as to influence and even determine the succeeding phases of the campaign.

General von Bernhardi has the gift of close and searching reasoning, and the ability to present his

views in a vivid and trenchant form, as convincing as the writings of the late Colonel Henderson.

His opening chapter deals with the conception of the conduct of War in the sense of to-day, and he proceeds to analyze the functions of the Cavalry as modified by the changes which have occurred.

In lively detail he explains the difficulties which in future will confront all Cavalry operations, and the sacrifices that will be exacted from this Arm.

Serious study and untiring perseverance must be claimed from the individual in order to equip himself mentally and physically for the task of overcoming these obstacles, while Bernhardi shows in convincing argument the brilliant opportunities of success.

Although the opportunity of tactical action on the battlefield may have somewhat suffered, Bernhardi sees in the strategical handling of the Arm its chief possibilities, and here he includes reconnaissance and operations against the enemy's rearward communications and pursuit of a defeated Army.

He considers cohesion and mobility to be essential to insure superior striking power by shock and fire action at the decisive point, and emphasizes this principle again and again as the means of attaining a high fighting efficiency.

In the chapters on Tactical Leading in Mounted Combats and Tactical Conduct of Dismounted Action, General von Bernhardi deals with the merits of shock and fire action, and the enhanced importance of the latter as an accessory to, though never as a substitute for, shock, and he defines the respective dispositions for dismounted action when serving an offensive or defensive purpose.

At the same time, he avers that success must depend

upon the ability of the leader to realize the situation, on his qualities of decision, and on his capacity to maintain a correct balance between the application respectively of shock and fire action.

The qualifications which General von Bernhardi expects in the Cavalry leader and those under him go to prove the scientific character of the profession, which demands a standard of extreme efficiency.

Successful Cavalry leading will only be possible when the machinery of the instrument employed is technically perfected down to the minutest detail, and this can only be attained by a very elaborate and thorough training.

The book should commend itself particularly to those critics who, drawing conclusions from the South African War, contend that the united offensive action of man and horse, culminating in the charge, can no longer avail, and that the future lies with the mounted rifleman, trained only to dismounted action. General von Bernhardi makes it clear that the theatre of War in South Africa does not assist us with any complete object-lessons from which to evolve a change of tactical principles, inasmuch as the conditions were entirely abnormal, and in European Warfare are unlikely to recur.

It must be remembered that after the first few weeks of 1900 the Cavalry in South Africa as an effective force had practically ceased to exist, and that its offensive action was greatly hampered by the strategical plan of campaign which we adopted subsequently to the occupation of Bloemfontein.

All that might be deduced from the defensive tactics of a mounted force, such as the Boers put into the field, during this period, is that, possessing greater mobility,

they were able to hold up, during short intervals, Cavalry whose capacity for mounted action was practically destroyed by the 'want of condition' of their horses.

Acting strategically as they did at Colesberg, in the relief of Kimberley, and in the operations leading up to Paardeberg, results were obtained which affected the whole subsequent conduct of the War. From then onwards, with the Cavalry acting tactically on the enemy's flank, the Boer Army withdrew practically on Pretoria, and no decisive tactical result was obtained.

If that was the object which the Superior Command had in view, the Cavalry carried out that purpose with remarkable distinction.

It is, however, conceivable that their strategical employment in rear of the Boer Army might have produced a situation compelling the Boers to fight a pitched battle or to surrender.

If the Cavalry failed to achieve more, it was not from any want of opportunity which the theatre of War presented, but because their true rôle was rarely assigned to them.

That the Boers were able at a later period to develop a vigorous scheme of action was largely owing to our conception of a plan of campaign which made the occupation of small capitals rather than the destruction of the enemy's Army the strategic objective.

Had the Boers understood the Art of War and taken advantage of the openings which their superior mobility gave them, or had they been possessed of a body of Cavalry capable of mounted action, say at Magersfontein, they might repeatedly have wrought confusion in our ranks.

Although the Boer War was of an exceptional nature, and of a character unlikely to be met with again, it furnishes some useful object-lessons which exemplify the importance of preparedness in peace for the sudden outbreak of War, so that the Army may take the field in such force and so disposed as to compel decisive action on the part of the enemy in the first stages of the War, and be in a position to inflict a crushing defeat rather than a series of light blows, which latter tend to disperse rather than destroy the enemy's forces.

The War further shows how highly mobile forces, such as those of the Boers, can withdraw from a combat to avoid defeat, and by scattering to elude pursuit, and then, by reassembling where least expected, can strike a sudden blow at the enemy's weakest point. That they failed to accomplish more was due to their ignorance of the higher Art of War.

To this neglect of the strategic advantage which mobility gives we must add the many lost tactical opportunities of converting a British reverse into a decisive defeat. The Boers did all that could be expected of Mounted Infantry, but were powerless to crown victory as only the dash of Cavalry can do.

If we take into account the many opportunities which the Boers gave for successful strategic and tactical employment to men trained to fight on horseback, we arrive at the conclusion that the Boer War may nevertheless, if studied carefully and intelligently, teach us the indispensability of Cavalry in the rôle so clearly described in General von Bernhardi's instructive work.

In conclusion, I must express my thanks to His Excellency General von Bernhardi for his courtesy

towards me in concurring in the idea of an English translation, and to General Sir John French for his valuable introductory comments.

I also wish to express to Colonel F. N. Maude my best thanks for his friendly co-operation, which gave me the advantage of his expert interpretation of German technicalities.

C. S. GOLDMAN.

34, QUEEN ANNE'S GATE,
WESTMINSTER,
September, 1906.

AUTHOR'S PREFACE TO THE SECOND EDITION

When, in the Spring of 1899, I published the first edition of this work, I ventured to express the hope that it might incite others both to thought and exertion, and might further prove of practical assistance to many.

I think I may claim without undue immodesty that this wish of mine has in many directions been fulfilled. Of the demands, however, which I put forward concerning the organization and equipment of the Cavalry, none have as yet been put into execution, but much wholesome spade work has been accomplished, and the necessity of reforms, together with due recognition of their importance, has everywhere made further progress. It is to be hoped that the next few years will bring the fulfilment of some of these our most earnest desires.

The principles of training and of tactics which I have advanced and endeavoured to establish have found very general acceptance throughout the Arm, and have helped to clear up difficulties, although, as indeed was to be expected, they have encountered opposition from several quarters.

This result of my labours has encouraged me in the preparation of this new edition to make use of all the latest experience, to bring out with additional

clearness essential points, and to add much new material.

I trust that in this manner I have materially increased the practical value of the work, and hope that in its new form it will continue to exert its silent influence, winning new supporters for my views, and helping to gain for the splendid Arm to which I belong the place which, in the interests of the whole Army, it deserves.

THE AUTHOR.

STRASZBURG, IN THE WINTER OF 1902.

AUTHOR'S PREFACE TO THE FIRST EDITION

It would be difficult for a layman to form even an approximate conception of the amount of work annually accomplished in the German Army.

The very vivid consciousness stirring everywhere as to the magnitude of the demands the not far distant future may make upon us, and the knowledge that the means with which we are compelled to work are certainly not always in agreement with our ideals, incite us to strain every nerve to make the most of what we have; and I believe I am not far wrong in asserting that it is the Cavalry Arm which, under pressure of circumstances, responds to these demands with the greatest avidity. This is, in fact, but the necessary consequence of the many-sidedness of our duties.

Whether, however, the end and aim of all our exertions is everywhere attained must remain an open question.

In every long period of peace there lurks the danger that methods of training may deviate after false ideals, lose themselves in the cult of imposing appearances, and in the clash of individual opinions fail to distinguish the essential—*i.e.*, what is really practicable under the conditions of active service.

This danger is all the more imminent when the

characters and forms of Warfare itself are constantly changing; hence, ever new demands have to be made upon the troops themselves, and the exact bearing of each of these is not easily to be appreciated in the humdrum surroundings of our peace-time duties.

It seems, therefore, a most pressing necessity at the present moment, when changes in social conditions and constant technical progress are exerting on the external phenomena and conditions of Warfare a steady pressure in the direction of modification, that we should compare our peace training with the requirements likely to be made upon us in time of War. Thus we can note where further adjustments between the two are necessary and can be usefully made.

In this process of analysis it will not suffice to take each changing factor independently, following it out to its utmost ramifications, but rather we must endeavour to take a general view of the whole, and balance the variables one against the other.

The man who concentrates his attention only on one detail easily loses his grasp of relative values, and runs the risk of failing 'to see the wood for the trees,' and only the mind trained to contemplate each factor in its relation to the whole, and with a clear idea of the ultimate purpose for which this whole is intended, will be able to avoid this pitfall; for only an intellect thus prepared can successfully harmonize the whole with its part, and, while keeping the essentials clearly before its eyes, treat the unessential as it deserves.

It is in order to bring out this point of view that the following pages have been undertaken.

As I endeavoured to arrive at a thoroughly clear comprehension of the many conflicting interests involved in the training of men and horses, as I tried to decide how to apportion both time and means to each

individual branch of their education, and to see how far the traditions of the past could be harmonized with the requirements of the future, or where and how they need further development and simplification, I found myself compelled at every turn to go back and seek my ideal standard in the demands which War itself must make upon all Arms.

Thus my work must be considered as an attempt to represent in broad outlines the conditions of the coming War, and from these to deduce logically the requirements a rational system of organization and training must satisfy.

Those who hold different opinions as to the tasks which will be entrusted to our particular Arm will naturally come to other conclusions as to the values to be assigned to peace education, and I do not wish to present my opinions as absolutely final, although I have done my utmost to treat my subject-matter objectively and without prejudice.

Meanwhile, the problems I have submitted for investigation are not only of military interest, but of the utmost military importance, and it has, therefore, seemed to me well worth while to discuss them from every point of view.

Further, because these investigations owe their origin to the practical need I experienced during the course of my service to clear up the many points I have dwelt on, I have considered it a duty to make them accessible to all those who have at heart the development in our Cavalry of a thoroughly sound spirit in full harmony with the necessities of our present times.

THE AUTHOR.

BERLIN,
March, 1899.

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INTRODUCTION

General von Bernhardi's work, 'Cavalry in Future Wars' (translated from the German by Mr. C. S. Goldman), is a most valuable addition to modern Cavalry literature, and appears at an opportune moment to counteract and dispel some misleading conclusions which have been drawn by certain writers (both English and foreign) from reported operations in the late Manchurian War.

One or two distinguished foreign soldiers who have publicly commented upon that campaign have said that what is termed the 'Cavalry spirit' is opposed to the idea of dismounted action. They hold that the Cavalry disdain to dismount, and they see in riding the end instead of the means. They consider that events in the Far East teach us that we must render our Cavalry less devoted to 'manœuvres' and to 'tournaments,' in order to enable them to fit themselves to take part in modern fighting; that the times have come when the methods of Warfare should be changed; and that the Cavalry must determine to defeat the enemy by dismounted action entirely.

I cannot speak with any certainty as to what has happened in European Armies, but as regards the

British Cavalry, I am absolutely convinced that the Cavalry spirit is and may be encouraged to the utmost without in the least degree prejudicing either training in dismounted duties or the acquirement of such tactical knowledge on the part of leaders as will enable them to discern when and where to resort to dismounted methods.

How, I ask, can the Cavalry perform its rôle in war until the enemy's Cavalry is defeated and paralyzed? I challenge any Cavalry officer, British or foreign, to deny the principle that Cavalry, acting as such against its own Arm, can never attain complete success unless it is proficient in shock tactics.

Cavalry soldiers must of course learn to be expert rifle shots, but the attainment of this desirable object will be brought no nearer by ignoring the horse, the sword, or the lance. On the contrary, the 'élan' and dash which perfection in Cavalry manœuvre imparts to large bodies of horsemen will be of inestimable value in their employment as mounted riflemen when the field is laid open to their enterprise in this rôle by the defeat of the hostile Cavalry.

That the Cavalry on both sides in the recent War did not distinguish themselves or their Arm is an undoubted fact, but the reason is quite apparent. On the Japanese side they were indifferently mounted, the riding was not good, and they were very inferior in numbers, and hence were only enabled to fulfil generally the rôle of Divisional Cavalry, which they appear to have done very well. The cause of failure on the Russian side is to be found in the fact that for

years they have been trained on *exactly the same principles* which these writers now advocate. They were devoid of real Cavalry training, they thought of nothing but getting off their horses and shooting; hence they lamentably failed in enterprises which demanded, before all, a display of the highest form of Cavalry spirit.

The author of this book is an eminent soldier, possessing an intimate knowledge of practical fighting, gained chiefly in one of the greatest Wars of modern times—the Franco-German Campaign of 1870-1871.

His opinions are entitled to profound respect, and demand close attention and consideration. The General has treated his subject and marshalled his arguments and statements in so logical and intelligent a manner, and the principles he deduces seem so sound and appropriate, that the conclusions he arrives at appear to me unanswerable.

In the exhaustive and capable summary of the work of Cavalry in war, General von Bernhardi seems to follow very closely the line of thought which has in recent years occupied the brains of many practical Cavalry soldiers in this country. He appeals strongly to our intellectual sympathy when he first of all discusses the strategical employment of Cavalry in all its bearings, and afterwards proceeds to unfold his views as to the rôle of the Cavalry Arm, first when the enemy's Cavalry has been driven from the field, and secondly in conjunction with the other Arms. Personally, I have never known the 'Case for the Cavalry' stated more clearly and intelligently.

In recommending the study of the book to all British soldiers, I would draw particular attention to the author's constant and repeated references to the necessity of first seeking out and fighting the hostile Cavalry and driving them from the field—in other words, to the immediate and complete attainment of the moral superiority.

In support of his opinions, he reminds us forcibly that the important results gained by the German Cavalry in the 1870-1871 campaign were due to the absence of opposition on the part of the French Cavalry more than to anything else, and he contends that in future Wars, where the Cavalry on either side have been properly trained as such, this supremacy will have to be fought for, and will involve an enormous increase in the difficulty with which the Cavalry Arm will carry out its rôle. He scoffs at the idea held by so many 'amateurs' that 'Cavalry duels' are superfluous.

Only those who have led Cavalry on active service in the field, and have been charged with their training in peace time, can realize to the full the absolute soundness of the conclusions at which General von Bernhardi has arrived, and it is much to be feared that the mischievous teaching which scoffs at 'manœuvres,' 'tournaments,' and the 'Cavalry spirit,' proceeds almost entirely from the pens and from the brains of men who have no practical knowledge of the handling of the Cavalry Arm.

The great value of this book to the British Cavalry officer of to-day seems to me to lie in the fact that this

particular vein of thought and argument pervades it throughout.

The General tells us, with the soundest arguments and the most positive proofs, that 'the brilliant field of enterprise which is open to the Cavalry soldier in his rôle as a mounted rifleman can only be attained by him when he has overthrown the enemy's Cavalry.'

The author, having unmistakably insisted upon the preliminary overthrow of the enemy's Cavalry, proceeds to vindicate the idea that the Cavalry spirit is in any degree opposed to the idea of dismounted action when necessary. On the contrary, he declares emphatically that the Cavalry fight is only a means to an end, and that the hostile Cavalry, once disposed of by means of horse and cold steel alone, a brilliant rôle lies open to that arm by reason of their possession of an efficient fire-arm, in the use of which the cavalryman has received a thorough training.

The great difficulty, he tells us, lies in the necessity of discovering a Leader who possesses the 'power of holding the balance correctly between fire power and shock, and in the training for the former never to allow troops to lose confidence in the latter.' 'Whether,' says the General, 'it be in the working out of some strategical design, or in joining hands with the other Arms to obtain by united fire action some common purpose, a balance of judgment and absence of prejudice is implied which is of the rarest occurrence in normal natures.'

In dwelling so persistently upon the necessity for Cavalry being trained to the highest possible pitch to

meet the enemy's Cavalry, I do not wish to be misunderstood. I agree absolutely with the author in the principle he lays down that the Cavalry fight is only a means to an end, but it is the most important means, and I have thought it right to comment upon this because it is a principle which in this country, since the South African War, we have been very much inclined to overlook. To place a force of Cavalry in the field in support of a great Army which is deficient in the power to overcome the opposing Cavalry is to act like one who would despatch a squadron of war-vessels badly armed, badly trained, and ill found, to blockade a distant coast-line defended by a powerful fleet. What is the naval fight in the open sea but a means to an end? It would be as sensible to dwell on the inutility and waste of a duel between hostile fleets as to lay down the principle that the 'Cavalry battle' in no way affects the mutual situation of hostile armies.

But the 'end' in view which General von Bernhardi has so clearly laid down must never be lost sight of.

Whilst the conditions of modern War have rendered the service of reconnaissance far more difficult, the same causes lend themselves to a much easier deception of the enemy by means of feints, etc. Cavalry, when working with the other Arms, can render valuable service in this way, and also in bringing rapid support to a main or counter attack.

Another most important point must be noticed. I allude to the increasing tendency of umpires and superior officers to insist on Cavalry at manœuvres

and elsewhere being *ultra-cautious*. They try to inculcate such a respect for Infantry fire that Cavalry is taught to shirk exposure, and the moment Infantry come within sight, squadrons are made either to retire altogether, or dismount and shoot, regardless of what the 'Cavalry value' of the ground happens to be.

I have no hesitation in saying that immense harm is done to the war efficiency of Cavalry by decisions of this kind, which disregard altogether the human factor in the problem. We ought the more to be on our guard against false teaching of this nature, seeing that there are many grave warnings to be found in history of the inevitable consequences of thus placing the weapon above the men.

After the war of 1866 the great von Moltke made the following report to the King of Prussia:—

'Our Cavalry failed, perhaps not so much in actual capacity as in *self-confidence*. All its initiative had been destroyed at manœuvres, where criticism and blame had become almost synonymous, and it therefore shirked independent bold action, and kept far in rear, and as much as possible out of sight' (Moltke's 'Taktisch-Strategische Aufsätze,' Berlin, 1900).

By like methods in peace training prior to the War with Turkey such timidity had been developed in the Russian Cavalry that, in the words of General Baykow, Cavalry commanders showed a marked disinclination to undertake operations which were well within their powers, but which might bring them in contact with the Turkish Infantry, and so run risk of suffering loss.'

History is full of similar instances of how *not* to

train Cavalry, and I hold most strongly that the Arm must be educated up to a readiness *to act*, to come to close quarters in co-operation with the other Arms, and to risk casualties, as Infantry has often done before without losing its 'battle' value.

To sum up, training with a view to self-sacrifice during peace exercises is essential for the success of all Arms in War, but especially so for Cavalry.

With remarkable perspicuity and telling conviction, General von Bernhardi has dealt in an exhaustive manner with every subject demanding a Cavalry soldier's study and thought. I am convinced that he who thoroughly masters the contents of his book will feel no doubt, and will entertain no misapprehension as to the vast rôle his Arm is called upon to fulfil in War, and he will realize how, in mastering the great essentials of which it treats, he will himself be assisting in the best possible manner to maintain the prestige and glory of the great Service to which he belongs.

I

EMPLOYMENT OF CAVALRY AND ESSENTIALS OF LEADERSHIP

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CHAPTER I

THE MODERN CONDITIONS OF WAR, AND THEIR INFLUENCE ON THE EMPLOYMENT AND USEFULNESS OF CAVALRY

The Art of War has undergone a momentous change; indeed, it has been revolutionized since the Franco-German War. Every condition that affects the conduct of warlike operations seems changed in almost every particular. Arms of precision have reached a degree of perfection which compels us to take into account possibilities which did not exist a few years ago, and for which the experience of the past can offer no scale of comparison. The all but universal introduction of Compulsory Service, and the consequent reduction in length of time spent by the soldier with the colours, have changed the character of almost all European Armies.

All the most typical factors in the standing Armies of former days disappear more or less on the issue of the order to mobilize. New groupings of units are formed from the first outbreak of hostilities, and the fact that these bodies are put together only on mobilization, together with the reduction in the period of service which has been very generally accepted, tend to depreciate the average value of the troops, whilst at the same time the 'masses' have risen to unimaginable dimensions. This '*folie des nombres*,' against

which certain French Authorities have warned us, is a very stern reality.

Experience has shown that the mere preparation for War, penetrating year by year more deeply into the very heart of nations, must in future unchain, from the first moment that the Armies of the Continent come into collision, all the horrors of a racial conflict, in which, from the first, the interests of every individual are involved.

The enormous development of railway communication has changed all conditions of strategical operations. Whilst the power of the railway to move masses since 1871 has increased, owing to the development both in the number and condition of the great trunk lines, the Armies themselves have become dependent on the railways in an ever-increasing degree. Further developments in Steam and Electricity will probably make these rearward communications both more necessary and at the same time more susceptible to injury. Thus all strategical conditions appear modified. Masses necessitate, even in the richest theatre of War, the return to the magazine system; hence the lines of communication are acquiring increased importance, and simultaneously great vulnerability.

On the other hand, the increased power of the weapons in use offers greater advantages to the local defence. The prospects of success in the direct frontal attack of strong positions have diminished enormously. The assailant, therefore, no longer able to succeed by frontal attack, is compelled to endeavour to work round the enemy's flanks, and thus exercise pressure upon his communications. His endeavour must be, as Frederick the Great would have said, 'to compel his opponent to fight outside of his chosen position.'

This increased importance of the communications, which in already exhausted districts will make itself particularly felt, will compel the defenders to take greater measures for their protection.

All these conditions taken together must of necessity increase the importance of strategy in the Wars of the future to an extent which, in my opinion, no sufficient conception has as yet been made. This final conclusion at least we must recognise, however much we may struggle against it (partly as a consequence of our somewhat one-sided experiences in 1870, and partly through the increased difficulty of all operations due to the increased masses and the more concentrated susceptibility of the railway communication): that the decisive factors in the next War must be 'superiority in the strategic direction of the troops, together with the increased efficiency they have attained and their endurance.'*

To meet this drastic revolution in all these conditions, the pressure of which has compelled the artillery into new lines of development and forced the infantry to change their whole constitution (whether to their advantage or not may remain an open question), no changes at all commensurate to their importance have as yet been initiated in the Cavalry.

Artillery and Infantry now have behind them the nation from which they can draw inexhaustible reserves of trained men for their constant replenishment. The Cavalry alone remains a specialized service, because, owing to the peculiar circumstances of its existence, it can scarcely count on having the

* The contrary view to this was largely held by a certain school in Germany, whose views the author is here endeavouring to combat.

wastage of War made good by equally well-trained men and horses; still less is its complete replacement in case of disaster to be hoped for. In spite of this, we have to recognise the fact that the proportion the Cavalry bears in all European Armies to the ever-increasing numerical proportion of the other Arms has steadily receded. The Peace establishments show this clearly. Thus, taking the Germans' figures for 1870, we had:

1870.

463 Battalions.
460 Squadrons.
251 Batteries.
15¾ Pioneer Battalions.

1902.

625 Battalions (including 18 of 'Rifles').
486 Squadrons (including 16 squadrons of Mounted Rifles).
562 Batteries.
38 Battalions Heavy Artillery.
28 Pioneer Battalions.

This ratio to the disadvantage of the Cavalry is even more apparent on mobilization for War, owing to the many Reserve and Landwehr formations of Infantry and Artillery, in comparison with which the few new units provided by the Cavalry are relatively unimportant. Considering the mobilized Army as a whole, the Cavalry forms numerically an almost insignificant factor.

There remains yet another point of view to be considered. Undoubtedly there has been in the Cavalry a most active spirit of reform. On the basis of the experience derived from the great Wars of the last forty years (in the list I include the American War of Secession), changes in armament and equipment have taken place in every direction, more particularly with regard to

armament. The necessity and possibility of strategical reconnaissance by independent bodies of Cavalry have been fully recognised.

The conviction also has been arrived at that only when supplied with a useful firearm and an adequate allowance of Horse Artillery will such 'masses' prove adequate for the accomplishment of this special task. With the same object in view, the means have been granted to them with which to destroy telegraphs and railways, to bridge rivers, and so forth. The conviction also has been gained that the Cavalry require to be so familiarized with tactical formations for their employment in 'mass' that they shall have become a second nature to them if they are to fight with a reasonable prospect of success. But all that has been done in these directions still remains insufficient. On the one hand, the improvements introduced have not taken into account the decisive changes in the general conditions which only the last few years have brought about. On the other, we must not forget that neither the Prussian Cavalry in 1870 in France nor the Russians against the Turks in 1877-1878 had even approximately equal Cavalry to oppose them. Even the great results achieved alternately by the Cavalry on both sides during the American Civil War were obtained in general under conditions which can no longer be anticipated, for at the moment of collision neither encountered, as a rule, either equal quality or numbers sufficient to develop their full power of attack.

The very important data obtained during the campaign of 1899-1900 in South Africa as to the employment of dismounted action by Cavalry were also not then before us. One could only, therefore, reason from

one-sided experiences, which can no longer be recognised as generally sufficient for our purpose. In future the mere possibility of results such as in 1870-1871 we so often gained owing to the absence of any serious opposition on the part of the opposing Cavalry, will nowadays have to be obstinately fought for, not without considerable loss; and it needs no special proof to show what an enormous increase in the difficulty of our task this involves, and how, as a consequence, all the conditions of our future action must be modified.

Thus, the Cavalry stands face to face with new conditions, and sees itself everywhere confronted—on the battle-field and in the wider field of strategical operations—with new problems, towards the solution of which the history of the past furnishes only very general indications.

If we mean to maintain our position as an effective Arm, and satisfy the demands that of necessity must be made upon us by these new conditions, *we must break* with many experiences of the past, and work out for ourselves principles of action which must be deduced essentially from the probable requirements of the future.

Each epoch-making War makes new demands upon us and prescribes new tasks, and he only will reap the palm of success who is able to meet them, because, with wise prevision, he has prepared himself to solve their difficulties in peace.

If we wish to make an approximately correct picture of the future that awaits us, we must first face the question, What will be the influence that the changed conditions in the Art of War considered as a whole must exercise on the possible scope of action of our Arm?

From the answer to this we can deduce the demands on the Cavalry in particular, and these demands give us a means for determining the limits of its employment, its consequent organization, and the training best suited to enable it to meet these requirements.

If we summarize all the conditions which have modified the conduct of War and contrast with them what Cavalry, from the very nature of its being, is capable of performing, it would appear at first sight as if every form of action of the mounted Arm has been impeded and rendered more difficult in the highest degree; more particularly is this the case when opposed to the increased power of modern arms. Certainly, the impact of a modern bullet may at times produce less immediate effect than formerly. Cases have occurred in which serious wounds did not place the individual out of action immediately, and we may therefore anticipate that many horses will not be stopped in the charge, despite severe injuries. But this drawback the Infantry can meet by opening fire sooner. To the Artillery this does not apply; and, in any case, this objection is not of such importance as to neutralize in any way the other advantages conferred by modern weapons.

Owing to the fact that the extent of the danger zone has been very considerably increased, and that within these zones the amount of fire which has to be faced in a given time has been intensified to a degree which formerly could hardly have been dreamt of, it has ceased to be possible to ride straight at the front of an unshaken enemy.

Thus, essentially the Cavalry has been driven out of its former place of honour on the battle-fields of the plains, and has been compelled to seek the assistance

of the cover the ground affords in order to carry its own power of destruction into immediate contact with its enemy, and only under most exceptionally favourable conditions will it still be possible to deliver a charge direct across the open.

Further, as far as the Infantry are concerned, it will be quite the exception to encounter them in closed bodies; generally we shall have to ride against extended lines, which offer a most unfavourable target for our purpose.

The difficulties both of observation and reconnaissance have also been materially increased, for, on the one hand, the increased range of the firearm compels one to keep further away from the enemy, thus making it more difficult to judge with accuracy his strength and positions; on the other, the use of smokeless powder, which no longer reveals the position of the firing line, renders a more thorough searching of the ground even more indispensable than formerly.

The possible participation of the civilian inhabitants of the invaded Nation in the War will hamper most severely all forms of Cavalry action other than on the battle-field. In intersected districts it may, indeed, suffice to paralyze completely the execution of all patrolling duties; and thus the offensive finds itself confronted by a new and permanent element of danger and delay, whose gravity we may estimate by the events which occurred in the latter portion of the Franco-German War, and we may be quite certain that in future all such experiences will be very much intensified.

Lastly, the fall in the numerical proportion of the Cavalry to the other Arms is all to our disadvantage. The greater numbers of the latter cover larger areas,

and whether to cover these or to reconnoitre them, it will be necessary to embrace far larger spaces, notwithstanding our relatively smaller numbers—*i.e.*, on each square mile we shall only be able to employ, on an average, a largely reduced number of patrols, etc.

Tactically this want of numbers again affects us. If the necessity to intervene arises, not only have we better firearms against us, but relatively a larger number of troops. Each tactical advantage secured will thus exercise far less effect than formerly upon our opponent, since the fraction of the enemy's force ridden down represents a smaller proportion of his whole Army.

If an Infantry Brigade, one of a force of ten Army Corps, is annihilated, the effect is not nearly so far-reaching as if this Brigade formed part of an Army of two or even three Corps.

If in these changed relations there are obviously factors which materially limit the tactical importance of Cavalry, and which must make the solution of their strategical tasks far more difficult, on the other side we find opportunities in the probable phenomena of a future War which, though less obvious, nevertheless on investigation lead us to the conclusion that the importance of the Arm is even greater than formerly, opening for it a wider sphere of activity, and even on the battle-field revealing new chances of success.

Let us consider these opportunities more closely. The greater the pitch of nervous tension to which men are wrought up in battle, the greater the pitch of excitement reached, the more decisive will be the reaction when the flood-tide of defeat overwhelms them.

Now that all European States are straining every nerve to employ enormous masses of men from the

first moment of hostilities, in order thus to gain an advantage whilst their enemy is still concentrating, and when we further consider how these exertions must increase the strain throughout the nation to the very utmost, it must be apparent that the first great decision of Arms must be of overwhelming importance. Not only the troops directly concerned, but the 'masses' behind them, find themselves for the moment involved in the consequences of victory or defeat. Hence the reaction in either direction, owing to the lower average quality of the troops, their greater numbers, the increased difficulties of moving them, and the susceptibility to congestion of their rearward communications, must be far greater and far more disastrous than hitherto under similar tactical conditions.

The more important it is to secure a favourable decision, the more difficult with growing masses to divert an operation once commenced, to give it a new direction or assign it a new objective, the less possible it becomes to alter dispositions which may have been issued on false premises ; hence again *the greater grows the value of thorough and active reconnoitring.*

If this holds good, more especially for the first great collision, it remains also a guiding principle for all future operations ; for, on the one side, it is probable that even in its later stages the War will be conducted with comparatively great masses ; on the other, as we have seen, *the importance of the strategical element has unquestionably grown ;* hence the *value of efficient reconnaissance* has been proportionably intensified.

In similar measure the importance of screening has also developed. In proportion as the assailant is compelled to resort to turning movements and surprises, the defender is obliged to have recourse to

timely changes of front and unexpected counter-attacks; hence for both timely reconnaissance of the enemy's, as well as for trustworthy screening of one's own operations, the extended employment of the mounted Arms has become imperative. In other words, although reconnaissance and screening for strategical purposes by the Cavalry have been rendered more difficult by the conditions we must expect to meet in the future, on the other hand, they have gained enormously in importance. And it is not in this direction alone that the value of the Arm has increased, but it has also had a new and important field of activity thrown open to it owing to the increased susceptibility the rearward communications of the enemy and his railways have developed.

As a consequence of the increased liability to interruption of these communications, and also of the far more serious confusion to which any such interruption can give rise, it has become far more difficult than in the past to execute offensive flanking operations, changes of front, or counter-attacks, all of which are movements which the practical strategist must bear in mind. On paper and on the map such undertakings appear to present no more elements of friction than formerly, but on the ground itself those who have once seen masses of several corps all huddled together know that things are very different. All such movements nowadays are tied to the railway-lines, and these, again, are congested by the flow of food and ammunition, which must at all costs be maintained. Fresh units also of troops may be coming up to the front, whose arrival is of the last importance in the plans of the generalissimo, and a single broken viaduct may throw confusion into the whole design.

In a densely-populated and fruitful district the resulting failure of supply may be endured, but it is very different when in a poverty-stricken district the supply of a whole Army depends on perhaps a single line of railway.

Thus the Cavalry sees itself confronted by a task in the solution of which it can achieve results of *decisive importance* in a new direction, for the following reasons: The relative importance of the Arm during actual operations having been materially increased, the period of concentration preceding actual collision (notwithstanding the fact that the actual effectiveness of Cavalry in the face of modern firearms has been decreased) offers opportunities which under certain conditions promise higher results than formerly.

If every delay in the march which may be caused by the action of Cavalry against the flanking lines of advance of an Army concentrating for battle is detrimental, how much greater would be the disorganization resulting from similar operations after defeat! Very rarely in such a case would it be possible to retire eccentrically by the same roads which were used for advance. The beaten troops generally drift back quite involuntarily in the direction into which they have been compelled by the results of the tactical decision. The wider the original front, the greater the masses of the troops concerned (which are now not only in a demoralized condition, but are compelled, under pressure of pursuit, to change their communications into new directions, and for this purpose to disentangle the columns drawn in for the concentration) and the greater the certainty that conditions must arise which will give to an active

Cavalry an even richer opportunity of harvest than was formerly open to them.

This will in future be all the more the case when troops of lower quality, and therefore more liable to become shaken and dispirited, have to be employed. Reserve formations—Landwehr and the like—which under favourable conditions might render excellent service, when once beaten, without officers, weary and hungry, lose all cohesion, when, with baggage, wounded, and stragglers, they are driven back over crowded roads; and then, no matter how well they are armed, they are an easy prey to a pursuing Cavalry.

The man who throws his rifle away or shoots in the air will not find salvation either in clip-loading or smokeless powder against the lance in the hands of a relentless pursuing Cavalry.

The same holds good for the fight itself. We cannot attack even inferior Infantry as long as it only keeps the muzzles of its rifles down and shoots straight; but once it is morally broken and surprised, then the greatest results are still to be achieved even on an open battle-field. That, at least, the campaign of 1870-1871 sufficiently proved, although the Cavalry were so seldom allowed the opportunity to reap the ripe harvest our strategy and the action of the other Arms had so abundantly prepared for them.

A further point in our favour is to be found in the fact that the increased power of modern Artillery fire has rendered the defence of villages and woods practically an impossibility. The Infantry are thus compelled to seek open but rolling ground, and it is precisely such ground which favours the concealed

approach and sudden attack of the Cavalry; but surprise is the very essence of successful Cavalry action.

If we bring together all these points of view which have been hitherto only indicated, we find, on the one hand, the absolute fighting value of the Cavalry has considerably diminished, and that in modern War the conditions of Cavalry employment will in every direction be rendered more difficult; on the other hand, the strategical importance of the Arm, as well as the scope of the duties which it may be called upon to fulfil, have increased very decidedly, and very important new opportunities for successes have been thrown open to it.

We cannot sufficiently insist upon the cumulative effects which all these general changes in the nature of War have exercised upon the Cavalry Arm; for not only has public opinion taken up the opposite view, but even in the Army itself these positive views have not received the attention they deserve.

The exploits of our Cavalry in 1870-1871 have been universally admired, without, however, being appreciated at their true relative value. On the other hand, reasoning from the mechanical perfection of the fire-arm, the conclusion has been reached that, as against Infantry and Artillery, the Cavalry can no longer hope to achieve any results of importance. It has been shown that in 1870-1871 the German Cavalry possessed a great numerical superiority over its adversary—that, in fact, numerous regiments during the whole War either never came into action at all or at least never had the opportunity to exhibit their full value in other fields of employment, and hence it has been concluded that an increase or organic reform of

what they are pleased to consider a somewhat antiquated Cavalry is quite superfluous.

An attempt on the part of the Imperial Government to introduce an increase of establishments had to give way to more important considerations. In fact, practically the German Cavalry in number and organization remains to-day the same as in 1870.

But the duties which in future will fall to the Cavalry are so wide-reaching, and for the conduct of the War are often of such decisive importance, that on the manner of their execution the ultimate results of a campaign must very materially depend.

If the Cavalry is not in a condition to prove equal to these duties, we shall find ourselves confronted with a situation of the gravest danger. Hence it becomes unconditionally necessary to apply the reforming hand where important deficiencies and practical insufficiencies can be recognised. In order to apply the lever of reform at once to the best advantage, we must be quite clear in our own minds in which part of the conduct of War the importance of the Cavalry will principally be felt. Only from the recognition of the demands which will there be made upon it can we conclude in what direction its further evolution can be initiated.

We must, therefore, get a clear conception of the probable demands to be made upon the Arm in each individual phase of a future War, test them with a view to their relative importance towards the result as a whole, and then endeavour to recognise on which factors the success in each individual phase principally depends.

In the first place stands naturally the demands which will be made on the Cavalry during the early

periods after the declaration of hostilities—that is, during mobilization and concentration. These require all the more attention because, as we have seen, it is particularly these introductory stages of future War which will be of particular importance, and because it is precisely in these very points that opinion is as yet not united.

Then we must follow the employment of the Arm in the further course of operations, and endeavour to determine in what direction the most important results are to be obtained.

CHAPTER II

DUTIES AT THE BEGINNING AND DURING THE COURSE OF THE WAR

The importance which attaches to the first tactical decisions, the fact that their success is mainly determined by the uninterrupted execution of the railway deployment, the safe arrival of the troops and war material in the appointed zones of concentration, the consideration that the continuance of the operation after the first battle—retreat or pursuit—is mainly conditioned by the uninterrupted action of the rearward communications, make it indubitable that it is of the utmost importance to disturb the corresponding operations of the enemy, and thus place one's own Army from the very beginning in a position of material and strategic advantage.

Since the Cavalry is not only able to cover great distances with overwhelming rapidity, but also, owing to its special character as a standing branch of the Army, is always ready to march and operate, whilst the other portions of the Army are still occupied with their mobilization, the opinion has been freely expressed that it would be advantageous to utilize this period required for the mobilization and railway transport of the other Arms for Cavalry raids, either into the zone of concentration, or against the commu-

nications of the enemy. Russia has for this very purpose concentrated upon the German and Austrian frontiers enormous Cavalry forces, supported by light infantry. France also keeps a numerous Cavalry practically on a war footing on the frontiers of Lorraine.

On the outbreak of War these masses are ready at the shortest notice to ride over our frontiers, to break up our railways, to seize our horses and depots, to destroy our magazines, and to carry terror and consternation into our zone of assembly.

It cannot be denied that in such manner by no means inconsiderable damage could be caused, and hence one must earnestly consider, first, what chances of success such enterprises offer, and next, whether the relative magnitude of the probable results are proportionate to the probable losses they must necessarily entail.

Cool and objective consideration of such ideas must, in my opinion, lead us to negative such undertakings—on our side, at any rate. In the first place, the enemy will always be in a position, by suitable organization of his frontier guards and the situation selected for the front of his strategic deployment, to withdraw himself either altogether from the radius of action of the Cavalry, or at least render its advance both difficult and dangerous. The danger will be the greater the more it has been possible to provide for the armament and organization of the population in the frontier provinces. Where the conditions on the side of the defender are not unusually unfavourable—as, for instance, in wide open districts—or where there is a want of troops in strategically unimportant provinces, then even if the invading masses break in on the very first day of mobilization, they will find railways, defiles, river-crossings already defended by infantry or

popular levies. If they come upon an insurgent population they will find great difficulties both in reconnaissance and subsistence.

At every step they advance, the numbers of the opponent will be constantly increasing, while their own strength diminishes. The defiles will be occupied between their several columns, and they must guard themselves in every direction. Their trains and baggage gets into confusion, and supply becomes all the more difficult the more rapidly they advance, because the waggons cannot keep up with their movement, and there is no time for requisitioning. Field batteries and lines of infantry occupy the more important positions, the enemy's Cavalry appears on the flanks, and man and horse break down at length under the severity of the strain. Retreat becomes inevitable, and if they ever get back at all, they can only reach their own Army after heavy losses and with broken force. The damage which they can do to the enemy remains small in proportion to his total power, even though it is locally not inconsiderable. At the best one may hope to destroy some railway not too far from the frontier, interrupt some telegraph lines of communication, and disperse or capture some ammunition depots, magazines, or snap up some convoys of reserve men and horses. But the enemy has already taken these possibilities into account; they will soon be overcome, and his arrangements in general will be hardly disturbed.

If, on the other hand, the Cavalry is accompanied by infantry, it will be even more hampered in its movements than by its own trains, and will soon have to decide whether it should make its movements dependent on those of its escort, thereby renouncing all

hopes of further results, or whether it should abandon the infantry to its fate. Certain defiles in the vicinity of the frontier, which the combined forces were able in advancing to occupy, the infantry may well succeed in keeping open; but if it attempts to follow the tracks of its own Cavalry, there can be no doubt it would be exposed to inevitable destruction.

This applies equally to the cyclist—at least, as far as the machine has as yet been developed; for though one cannot deny the great advantage which its mobility under certain circumstances offers, yet it remains too dependent on roads and weather to insure that freedom and certainty of movement which in such undertakings in conjunction with Cavalry are unconditionally necessary.

The attempt to break up communications by well-mounted officers patrols boldly pushed forward in advance would seem to offer even less chances of securing permanent results. They, too, will find the country obstructed by the armed population, or by troops in the act of concentration. Even weak detachments or patrols along the railway would suffice to effectively resist them; they can depend for success only on their rapidity and cunning. But most rivers are unfordable, and in the woods patrols can hardly venture, because every tree may shelter a man with a rifle. Once they leave the roads, their pace diminishes; they easily lose their direction; nowhere can they obtain security for rest and food, even if they are fortunate enough in procuring any. If, in spite of all this, they do happen to succeed in blowing up a railway or cutting a telegraph, the effect is infinitesimal.

The patrol itself will find its chances of escape

decreasing in exact proportion to the distance it has penetrated into the enemy's country.

The greater the number of the patrols employed, the more irreplaceable will the inevitable loss become; for it will always be the best officers, the men who put most energy and determination into the execution of their instructions, who are the most likely to fall victims to their courage and audacity.

Premature advance of the Cavalry during mobilization and concentration can only procure information of little or no importance, for the existing railways, the direction of the frontiers, and the peace-time distribution of the troops reveal all this to the General Staff beforehand. These, together with the secret service, political conditions obtaining at the moment, and press intelligence, will enable one to forecast with some degree of precision the general situation.

Now, the Cavalry can hardly expect to attain more—indeed, it is doubtful whether they would succeed even in confirming what is already known, for the difficulties to be overcome, as we have seen, are numerous, and nowhere can one find completed situations from which to make reliable deductions. At most they can determine that certain places are already occupied, and that the traffic on certain lines is considerable, things that one knew *a priori*, which, therefore, are not worth any serious sacrifice. Moreover, it is exceedingly doubtful whether, at such an early period, when conditions are changing from day to day, such information has any practical value.

Of course, it is not intended to maintain that one should not from the very first moment after the declaration of War keep a sharp look-out upon the enemy, work up to him, and seek to determine as

much as rapidity and daring can succeed, with any probability of success, in attaining—that goes without saying. Particular value will always attach to the taking of prisoners, whose regimental numbers enable us to check the accuracy of our existing information. But against this we must emphasize all the more forcibly that in this first period of hostilities an inundation of the enemy's zone of concentration with masses or by far-flung lines of patrols is not only not expedient, but absolutely detrimental, since the certain cost of such undertakings stands in no reasonable proportion to the probably negative, or at most insignificant, result to be expected. Further, our own concentration has already been so prepared in peace that it must be carried out with clock-like regularity, even should the results of the reconnaissance disclose that the conditions on the side of the enemy were not quite those that we had originally expected.

Even the mere transference backwards of the line of strategic deployment, which in 1870 could still be carried out without serious difficulties or drawbacks, could nowadays, in view of the high tension induced by modern conditions, only be executed with extraordinary difficulty, whilst lateral displacement of such numbers is quite inconceivable. For even if the railway organization would suffice for the execution of such a design, the many other preparations in the zone of concentration can neither be moved nor improvised.

Summarizing the whole question, the conclusion, I think, must be, that only that Army which has at its disposal a great preponderance of Cavalry could allow itself the luxury of such premature commitment of its mounted forces.

In general, the difficulties of replacing the losses of

the Cavalry with material of equal quality is so great that only the most important reasons could justify any such attempts. Hence the side which is weaker in Cavalry will meet the circumstances best by keeping back its horsemen, and not sacrificing its officers for infinitesimal, and probably unattainable, advantages. It will be better merely to work up to the enemy as close as may be possible without serious losses, allow the enemy's mounted forces to wreck themselves against the opposing infantry and armed population, and only then to put in its Cavalry for decisive action when the opponent has already wasted his best elements in the pursuit of insignificant advantages. After all, it is only then, when the strategical concentration commences, after railway movement is completed, that reconnaissance becomes both possible and important.

Circumstances can, of course, arise in which, already during the first period of operations, exhaustive independent activity may be demanded from the Cavalry, as, for instance, when one has reason to believe that the enemy has changed his previously-selected zone of concentration, or, as when in 1870 on the German side, it becomes necessary to take steps to protect the frontier districts against the enemy's raids. In the first case the attempts to discover, by the employment of Cavalry, the changed dispositions of the enemy is certainly permissible. The patrols must then go forward until they can settle the decisive questions, and strong detachments must be pushed out so close behind them, that the patrols and their following squadrons can find a safe retreat, and insure the transmission of the intelligence they have collected.

In such enterprises tactical collision with the

enemy's Cavalry and his frontier troops might ensue. It may therefore be necessary to support our squadrons by Infantry and Artillery.

But in every case we must be careful to keep within the limits which are conditioned by the purpose of the undertaking, and not allow ourselves to be involved in desperate and doubtful enterprises.

In the next case the duties of the Cavalry are merely defensive. All that then matters is to rob small bodies of the enemy of their opportunities, to block the traffic across the frontier, and to work round their patrols with our own forces; but in no case are they to attempt to obtain positive advantages by force, or to hazard important decisions against a superior enemy. Wherever possible every effort should be made to supplement the troops assigned to this defensive attitude by the armed population, or even to replace them by such levies altogether. The fortification and defence of villages and isolated farms, occupation of railways and watercourses, and, above all, the defence of woods which might favour the concealed advance of the enemy's patrols, can well be left to the care of these improvised formations.

Hostile attempts can be generally met by dismounted fire action in well-chosen strong defensive country, possibly supported by detachments of Infantry, Artillery, and 'Landsturm.' If the enemy's superiority is great, then one must retire until the equilibrium of the forces is re-established, the strategical necessity compels us to fight, or, finally, the tactical situation gives good promise of success.

One must, however, always keep this clearly before one's mind: that the essence of all Cavalry action in the opening stage of the War lies neither in this purely

defensive attitude, nor in the offensive enterprises previously alluded to, by which the concentration of the enemy would be disturbed or other material successes might be achieved, but that the decisive purpose only begins when important and possible tasks can be given to the Cavalry—*i.e.*, when the main bodies of the enemy become ready for operations.

Then it becomes our duty to screen not only the advance of our own troops and to secure to our Infantry the advantages of being able to advance undisturbed, but the climax of all these duties will be reached *in the far more important duty*, in the now indispensable task, of securing the *widest possible sphere of intelligence.*

Whereas, during the period of railway concentration the front of the enemy was conditioned by the ends of the lines employed in bringing up the troops, who in turn spread themselves out to utilize the resources of the country (hence generally our patrols, if sent out, would come in contact all along the threatened frontier or the enemy's line of detrainment, with defended villages, etc.), the troops will now be drawn into closer cantonments, or bivouacs, and group themselves together into clearly-defined masses.

There will therefore now arise between separate portions of his Army and their lines of advance, spaces unoccupied by troops into which our Cavalry can penetrate. The heads and flanks of his columns can now be determined, and the direction in which they are marching, thus ascertained, becomes of essential importance.

Now is the time when the Cavalry must put in its full strength to discover the strength and direction of the enemy's movements, and the fact of this concen-

tration provides the Cavalry with the opportunities necessary to solve the problem before it.

Of course, immediately after detraining, troops will have to march to the districts to which they are assigned for convenience of supply, and this will lead to the formation of temporary groupings, which it will be advisable, if possible, for us to observe. But it must not be overlooked that observations during this period may easily lead to false conclusions, as such movements serve only secondary purposes or introductory measures, and seldom justify any conclusions bearing upon the design of the ultimate operations. These latter only develop after a certain degree of concentration has been attained, and hence the essence of the whole question resolves itself into this—that the Cavalry should not be put in until shortly before the strategical concentration begins.

From the results now obtained the success of the whole campaign may entirely depend. At this climax no secondary consideration must be allowed to distract attention from the principal object. Even the desirability of screening the movements of one's own Army, in so far as this duty is not fulfilled by the reconnaissance itself, must give way to the attainment of the principal object in view, which is *intelligence*, not *security*.

This point requires to be more particularly insisted upon, because fundamentally different arrangements are necessary to fulfil these two purposes. Anyone who attempted to entrust both the provision of intelligence and the protection of the troops to one and the same body of men would in the vast majority of cases fail to secure either purpose as long as the enemy's mounted forces still held the field.

To secure information—*i.e.*, intelligence—requires concentration of force. The reconnoitring Cavalry must beat their opponents out of the field in order to obtain opportunities for discovering what is going on behind the enemy's protective screen. To accomplish this, the Cavalry must endeavour to work round the adversary's flanks, and may in consequence have to leave the front of its own Army entirely uncovered. The protection of this Army, on the other hand, requires a wide extension of front and consequent subdivision of force, the exact opposite of the concentration the provision of intelligence imperatively calls for.

Naturally this view encounters opposition. Some contend that the whole triumph of the Art consists in solving both problems simultaneously. They reason that it is superfluous to seek an encounter with the enemy's Cavalry. Cavalry duels only lead to the mutual destruction of both parties. They maintain that one ought to advance, in the interests both of security and screening, on a certain breadth of front. If, then, circumstances compel one to fight, one must concentrate quickly, and after the combat gain again the necessary degree of extension to cover the front of the Army. They would leave reconnaissance to be carried out by rapidly advancing patrols, which evade those of the enemy, find cover in the ground, gain advantageous points of observation on the flanks and in rear of the opponent, thus obtaining their objects in spite of the enemy.

I hold it to be a grave error of judgment to believe that any systematic application of this line of action will give sufficient results.

Advantages in war must be fought for; they cannot be filched.

Was it not difficult enough in 1870-1871 to obtain reliable information, although we had no true Cavalry opponent against us, and still more difficult to get that news through to Headquarters in time? How much more difficult, therefore, will it not be in the future, when we can no longer count on controlling unconditionally the country between the two Armies, and the enemy's Cavalry hold the field as well as we!

Who will then guarantee that our patrols will really penetrate the enemy's screen; above all, that their reports will get back through the district controlled by the enemy's Cavalry in time enough to be of use to Headquarters in forming its decisions? If the patrols are compelled to elude those of the enemy, to seek for intersected country, and to make detours, one cannot count on the requisite rapidity; and the greater the total numbers brought together in modern War, the greater the distances become which have to be reckoned with.

If from the very necessity of finding the shortest way and securing communications with one's own Headquarters it becomes necessary to beat the enemy's Cavalry out of the field to clear up the situation sufficiently, the need of fighting is brought home to one with all the greater force, because any other line of action leaves the enemy chances at least as good as our own, which can never be the objective of any form of military action, and ultimately fighting becomes compulsory if, in addition to reconnaissance, one attempts to carry out screen duties at the same time. It stands to reason that the enemy's Cavalry can only be prevented from seeing by actually driving them off the ground and depriving them of the power of breaking through our own screen. That a numerically and

materially inferior Cavalry does well to avoid action goes without saying, but fundamentally the duty of the Cavalry must be to seek to bring about collision with that of the enemy, so that from the very beginning it secures command of the ground between the two armies, and that the actual and moral superiority in the whole zone of operations between the two armies is obtained from the outset for our own Cavalry.

The victory of the 'masses' intensifies and invigorates the sense of superiority in the individual combatant, and this sense of individual superiority is essential if the patrols are to carry through their duties in the true Cavalry spirit.

On the one hand, they are only able to solve their tasks both of screening and of reconnaissance by actually defeating the enemy's patrols; on the other hand, the moral factor tells heavily in the scale.

How can one expect courage and determination or audacity from men who have always been taught to avoid their opponent and only fight when they are actually compelled?

The man who leaves these psychic factors out of account will always find himself mistaken in War.

That in certain cases it may be useful to push forward officers as stealthy patrols, with instruction to avoid being drawn into an action, as far as time and opportunity will allow, goes without saying; but nevertheless stress must be laid upon the point that already in the period which is in general taken up with the encounter with the enemy's Cavalry, no opportunity should be lost of keeping the principal masses of the enemy's Army under direct observation, and that therefore it is necessary from the very commencement

of the advance to send out officers patrols for this special purpose.

These patrols will derive their best support from a tactical victory obtained over the enemy's Cavalry, which is manœuvring in their rear.

Thus the fact remains that we must fight to reconnoitre and fight to screen, and that only a systematic division of the two spheres of action can give us the freedom necessary to insure the adoption of the proper form at the right time and place.

A victory of the reconnoitring Cavalry by shattering the strength of the enemy's horsemen must always result, both directly and indirectly, in the advantage of our screening force.

The whole consideration, therefore, leads me to the conclusion that the chief task for the Cavalry consists in obtaining a victory over the enemy's Cavalry in that direction which is of decisive importance for the further prosecution of reconnaissance as soon after the beginning of the great operations as possible.

That it cannot be our object to seek the opponent's horsemen in the direction which they themselves have selected—merely to beat them—need scarcely be insisted upon. That would be to take the law from the enemy and allow one's self to be diverted from the principal direction in which reconnaissance is desirable.

Time and direction of the advance must rather be so chosen that they compel the enemy to move to meet us. At the same time our effort must be to appear with numerical superiority, in order to be certain of victory.

In what concerns the Cavalry in the further course of the War, the necessity both of screening and reconnoitring recurs again and again; and in many cases

even after the enemy has been beaten out of the field, these objects will still only be obtained by fighting. Such cases will occur in the duties of screening and security when the enemy still possesses enough offensive power to attempt a reconnaissance, with the threat of attack combined, and we ourselves are engaged in a similar manner; also in all such cases in which turning movements entail too much delay, or are rendered impossible by the extension of the enemy's front; or, again, when the enemy on their part renew offensive operations.

The necessity of breaking through the line of Infantry outposts in order to discover the whereabouts of the enemy's principal masses and the direction of their movements will also from time to time arise, and it may become necessary to suppress rapidly and thoroughly attempts at armed resistance by the civilian population.

Further, our Cavalry will be called on for attempts against the enemy's communications, the strategical importance of which has been already discussed, and these will be all the more important in cases where the district we are fighting over is too poor to supply the enemy's forces, or where operations have assumed a stationary character, as before Fredericksburg, Paris, and Plevna, and it becomes desirable to hinder the use of the railways for the transport of troops or evacuation of supplies.

Lastly, the Cavalry may be called on to occupy wide stretches of country and exploit their resources, to nip in their very inception the formation of fresh bodies of armed defenders, or on the defensive, to secure our own communications or districts against undertakings by flying columns of the enemy.

Such undertakings, particularly when they lead in rear of the enemy's Armies, will frequently assume the character of 'raids' in which the essential purpose is to cover great distances rapidly, often with the sacrifice of all communication with one's own forces, to appear suddenly at previously selected positions, and after completion of one's immediate object to disappear suddenly, before the enemy can bring overwhelming numbers against the assailant.

The success of such undertakings will depend, on the one hand, on the rapidity with which the opportunities secured by such surprise are utilized, and, on the other, on the available fighting power, which must suffice to break down all opposition with certainty and speed.

Their execution, however, will always encounter many difficulties, particularly when a hostile population has to be dealt with; but to consider them on this account as impracticable seems to me all the more impossible, because to my mind they embody an absolutely indispensable element of future operations.

If it is feasible to enter upon them with fresh horses, and to make adequate provision for supply without delaying the rapidity of movement, either by utilizing the resources of the country, by taking suitably organized columns with one, or by living on stores captured from the enemy himself, then such 'raids' will succeed and exercise most far-reaching consequences.

In my opinion all these conditions can be satisfied. We can preserve our horses by exercising greater moderation in the pursuit of non-essentials; difficulties of supply can be solved by suitable preparations even in an enemy's country, and when working in our

own, the sympathetic and persistent support of our own population will level all obstacles; but in all cases we must never leave out of sight the cardinal point that only the concentration of sufficient force at the right time and place can guarantee the final result.

Our conduct, however, will be different when our purpose is solely defensive, or when we have to occupy districts which the enemy does not seek to defend. In such cases, as also when our object is only the concealment of our own designs, a dispersion of force may be necessary, if only in order to occupy important defiles and defensive sections of the ground, or for the occupation of the most important centres of population in the enemy's country. From such tasks, however, it should be the business of the Supreme Command to preserve us, in order that the whole Cavalry strength should be retained intact for offensive purposes more in harmony with its whole character and the spirit of the Arm.

For these, if great results are to be attained, it requires in the generality of cases concentration in time and space.

With the execution of these strategical missions, which so far alone have attracted our attention, the duties of the Cavalry Arm are by no means exhausted.

Nowadays, as formerly, it will still find work to its hands on the battle-field itself, and this work will be all the more important in proportion as the quality of the forces therein encountered is on a lower level (*e.g.*, new formations, Militia, etc.). In any case, however, great results on the battle-field can only be expected from the employment of numerically formidable 'Masses.' This is conditioned by the very fact of the numbers which we must in future expect to see engaged.

The portion of the enemy's forces affected by the results of a successful charge must be a sufficient part of the whole which, at a given time and place, is concerned in the task of endeavouring to secure a decision.

Other factors also deserve consideration—above all, the increased range of modern firearms. If the front of the attacking Cavalry is too narrow, it will not only have to face the fire of the troops immediately in its front, but it will be the focus of the fire from all sides.

If the formation for attack does not supply a sufficient sequence of successive efforts, then in many cases it can have no hope of permanent result, for an onslaught by a single line will not have strength enough to pierce the fire zone, and will be shot to pieces before it can reach the enemy.*

The masses to be encountered are numerically so considerable that single squadrons, regiments, or brigades, hardly count in the scale of a great decision. Partial results they may, indeed, attain, but to bring about the defeat of a whole Army, or even of an important fraction of it, to reap the fruits of such a victory or cover a great retreat, numbers alone can avail.

How many units to employ under any given circumstances it is, of course, impossible to lay down beforehand; but the essence of the matter is that the limit of force to be thus employed is far in excess of what any existing tactical unit can supply.

* The same point also arises both in pursuit and in the covering of a retreat, two of our most important duties; for though, as already pointed out, the conditions of the present day offer to the Arm the opportunities of the richest harvests, it will only be able to utilize them when employed with concentrated force.

If, after this short survey of the many fields of action open to horsemen in the future, we ask the decisive question, Which tasks in the future will need to be most carefully kept in mind in the organization and training of this Arm in peace time ? we shall not be able to conceal from ourselves that it is in the strategical handling of the Cavalry that by far the greatest possibilities lie. Charges even of numerically considerable bodies on the battle-field can only lead to success under very special conditions, and even for the protection of a retreat our rôle can only be a subordinate one. But for reconnaissance and screening, for operations against the enemy's communications, for the pursuit of a beaten enemy, and all similar operations of warfare, the Cavalry is, and remains, the principal Arm. Here no other can take its place, for none possesses the requisite mobility and independence.

At the same time, it is in these fields that its power is all-important to the Supreme Command. Battles, under pressure of necessity, can be fought without Cavalry at all, and the results even partially utilized ; but it is impossible to issue suitable orders without knowledge of the enemy's operations, and equally impossible to act against an enemy's flanks and rear with Infantry alone.

It is in these directions that the future of Cavalry lies, and it is to fit ourselves for the tasks that we should bend all our energy in peace.

CHAPTER III

STRATEGICAL DISTRIBUTION OF THE CAVALRY

We have seen in the previous chapter that the principal duties which can fall to the lot of Cavalry in modern War will require its employment in considerable force; hence it follows that the greatest economy in the use of detachments for secondary purposes must be practised.

This leads us to the consideration of the question in what manner we can group our available means to meet these requirements in the best possible way.

Primarily we must start from this axiom—that no portion of the Army can do without Cavalry altogether; hence it follows that we must maintain both Divisional and independent Cavalry.

The former remains permanently attached to each portion of the Army whose composition, by reason of this addition of Cavalry, permits of independent action. The latter is set aside for the great strategical missions that may be assigned to that Arm for execution. The question now arises, In what proportion is this distribution to take place?

The greater number of Infantry Divisions can, in my opinion, meet all demands upon them with a very small allotment of mounted men, as long as they are acting in combination with the rest of the Army.

The circulation of intelligence and orders within the columns and their outposts can generally be entrusted to cyclists. Where independent Cavalry is deployed to cover the front of an army, the field of activity for the Divisional Cavalry in actual outpost duties and reconnaissance is of necessity very much limited. All they are really required to accomplish is to maintain the connection with the former, and for this duty the cyclist detachments above referred to will generally suffice.

There remains, therefore, for the Divisional Cavalry only the service with the most advanced sections of the Infantry outposts (orderly duties with the Infantry piquets in cases where the ground precludes the use of the cycle), duties connected with requisitioning; and reconnaissance only during those periods in which the mass of the independent Cavalry has been drawn away towards the wings of the Army to clear its front for battle, carrying messages during the combat, and actual reconnaissance during the progress of the engagement itself. All these requirements can, I think, be met with a very small amount of force, all the more so because reconnaissance under fire in modern War seems to me practically impossible, and can generally only be initiated by those Divisions which form the wings of the Army, but even then their field would be a very limited one.

Modern firearms compel us to remain at such a distance from the enemy that observation is rendered much more difficult, and the distances to be traversed are so great that before any reports from the wings can get round to the position of Headquarters, and suitable orders based on these reports can reach their destination, the whole situation may have changed

again and again. We have only to remember the cases which occurred in the last War (1870).

In the majority of these instances it was quite impossible that Cavalry patrols could have sent timely information of what was going on within the limits of the enemy's positions, and in the future the difficulties will be even greater.

In no case, however, can such information during the progress of an action be obtained by the actual employment of the fighting power of the Divisional Cavalry.

If it is to be done at all, then a few well-led officers patrols will suffice, and therefore no considerable numerical strength in the Divisional Cavalry is required. The lines of approach of the enemy and points on which his wings are resting must certainly be kept under observation, but this observation cannot in principle be initiated by the Infantry Divisions, but is the province of the Army Headquarters to provide, for it will be precisely the wings and the flanks which the enemy will himself seek to protect by the massing of his own Cavalry.

If the prospect of achieving anything by observation during the combat through the action of the Divisional Cavalry may be considered as well-nigh impossible, then any tactical action may also be considered as precluded, unless it takes place in combination with the independent Cavalry.

Occasions may certainly even nowadays occur in which a few squadrons may achieve results by taking part in a combat between the other Arms, but such cases are too few and unimportant to be taken into account in a distribution of the Cavalry as a matter of organization.

In Armies deprived of the screen of independent

Cavalry the want of Divisional Cavalry will certainly be more markedly felt even in those Army Corps which form the flanks of Armies, and in the cases of detached expeditions, and in similar exceptional circumstances. In all these instances more Cavalry must be sent up to the outposts, and it will have both to screen and reconnoitre.

The demands on its fighting efficiency can, under such circumstances, become of importance, and in these smaller operations, reconnaissance during action is more possible than with extended battle-fronts. But to demand for the Divisional Cavalry on these grounds a larger proportion of sabres, and thus to paralyse a great portion of the Arm by its inclusion in the long columns of march of the whole Army, is not justifiable. The scale on which we must decide the apportionment of Divisional Cavalry must depend on the fact that the Infantry does not generally operate in small detachments, but works in large masses, and it is the necessities of these large masses which fix the standard.

To apportion to single columns or Divisions for particular circumstances an increased force of Cavalry, to be taken from the available mass of independent Cavalry Divisions, ought not in general to occasion unusual friction; but it is most difficult and troublesome to take away from the Infantry the squadrons definitely assigned to it by peace-time organization, and unite these in independent Cavalry Commands.

We must not allow ourselves to be misled in this matter by the practice followed in peace manœuvres. Even the largest concentration of troops for these purposes is, in proportion to the masses to be employed in our future War, on a most limited scale.

Our smaller Brigade and Divisional manœuvres are restricted within limits which can only be considered nowadays as exceptional. They are only too well adapted to give rise to entirely false conceptions as to the true character of the Cavalry service in these great struggles for national survival, unless we keep steadily in mind that they apply only to exceptional circumstances.

We must, therefore, lay down as a principle that as much Cavalry as possible is to be organized for strategical independence, and as little as is expedient retained for the Infantry Divisions.

My opinion is that, if we make fullest use of the bicycle, and, with this object in view, reorganize our system of conveying orders and intelligence, then two well-trained and effective squadrons should amply suffice for the ordinary duties with an Infantry Division.

As to the allotment of the independent Cavalry Divisions, it follows from all that has been said above, that to divide them in equal proportions among the several Armies, according to their numerical strength, can only be considered as an obstacle to the full utilization of their potential fighting capacity. It would be better to arrange this distribution at the beginning of each War, in accordance with the conditions which the situation imposes. Where it appears expedient, we should not hesitate to form Divisions of different strength, and to group several of these to constitute Cavalry Corps, even to unite several of such Corps for employment in a particular strategical direction—*i.e.*, in a particular portion of the theatre of operation—whilst leaving only individual brigades, or even regiments, to those fractions

of the Army which for the moment can best dispense with Cavalry support.

Of course, an Army taking the field with a great superiority of Cavalry can afford to deal less sparingly with it for secondary purposes; on the other hand, the numerically weaker side is driven to the utmost economy of its forces, and the utmost energy in its employment at the decisive moment. It will therefore be essential for the latter to concentrate at the commencement of the campaign the bulk of its Cavalry upon the decisive line of operations—that is to say, on that line on which, from the general strategical situation, one can expect to penetrate into the chief district of concentration of the enemy's Armies, and hence to find out what it is of the greatest importance for us to know, or, on the other hand, when it is to our interests to conceal our own operations, and hence to beat the enemy's Cavalry as thoroughly as possible wherever it shows itself. On the remaining portion of the front we must endeavour to employ as little Cavalry as possible, and to supplement it in the duties of security by Infantry, whilst leaving reconnaissance to be dealt with by patrols. If we thus gain the victory on the principal line, the results will soon be apparent in a reduction of pressure on the adjacent sections of the front, and then the Cavalry will find its opportunity for increased activity in offensive enterprises. For, once the enemy's horsemen are beaten, either he will concentrate his remaining Cavalry, from every direction, towards the threatened points, or the victor will be in a position to utilize the superiority he has acquired to support any portion of his force which may have got into temporary difficulties.

If, thus, it is the necessity of beating the enemy's

Cavalry out of the field at the very commencement of the campaign which compels the concentration of important numbers in the decisive direction, it follows naturally that this point of view must be fully considered in the plan of strategical deployment.

In the further stages of Cavalry activity—*i.e.*, after it has defeated the mass of the enemy's Cavalry—the tasks which can confront the Arm make the employment of considerable forces essential, unless, as so often happened in 1870, its operations are to be interfered with, if not altogether stopped, by weak Infantry detachments, or even by an insurgent population. Against this concentration of large masses of Cavalry many objections will naturally be raised; hence we must consider how these are to be met, and whether, as a fact, they are of sufficient importance to cause us to surrender the advantages they offer.

First comes the difficulty of feeding large numbers. But military history, from the time of Frederick the Great and Napoleon down to the American Civil War, the unusual conditions of which latter must not be left out of account, show conclusively that it was possible to keep masses of 5,000 men and more together, and in full mobility, even in poor and almost roadless districts.

If it was possible then, how much more will it be so now, with our modern means of communication, if proper arrangements are made in advance!

It has been further objected that the rapid circulation of information from the front to Army Headquarters will be jeopardized by the insertion of an additional collecting station—viz., the Corps Command, between the two ends of the chain. But this fear can be shown to be groundless, for in any case where at

all large bodies of Cavalry are sent out in advance, the service of intelligence must be organized in such a manner that all really important information will be transmitted direct to Headquarters, as well as through the usual channels. Since this is already necessary with Cavalry Divisions, there can be no objection to applying it to yet higher commands.

More important than this question of intelligence is the consideration that the command of Cavalry 'Masses' which exceed more than the present Division of six regiments involves exceptional difficulties, and this must be granted to a certain extent as long as the question is limited to the actual tactical handling (execution of manœuvres) of the Division on the battlefield.

It is, in fact, no longer possible to handle a force of six regiments according to any set scheme, such as that known as the 'Dreitreffentaktik'—at any rate, not in hilly or difficult country. The transition from one formation to another, the deployment of the whole unit for attack, or the interchange of the duties between the separate lines, are certainly hardly possible on ground over which it is difficult to manœuvre. It appears, however, to me that the conduct of great Cavalry 'Masses' by ordinary drill methods is not necessary to meet the condition of modern warfare.

When once the Cavalry Corps Commander grasps the idea of handling the units at his disposal as the Infantry Corps Commander handles his Divisions, sending in first one Division, and then, according to circumstances, reinforcing it or prolonging the fighting line by drawing on the second one, or by employing the Divisions side by side, assigning to each a definite share in the attainment of the purpose, which he

himself keeps steadily in view, there seems no reason why the leadership of such bodies should not be perfectly practicable. Indeed, one may safely say that the result will be all the more certain of attainment the more the final responsibility is concentrated on the one head; for there is obviously a greater possibility of a single mind pursuing consistently a given purpose than of two or more Divisional Commanders following out the same idea independently along the same lines.

If, then, when the Corps is united for tactical action, the maintenance of a single Command is quite conceivable, this will be all the more the case in matters of strategy. It is not so much a question then of handling the Corps as a closed unit, for instance, on a single road, but of assigning within a certain sphere a united impulse to the constituent parts of the Command in such directions that in all cases they should reach the ground in force superior to anything the enemy can oppose to them. According to circumstances, different tasks may be assigned to the several Divisions. They may march on different roads, some of them extended, some closed, the only condition being that they all pursue a common strategic purpose, assigned to them by the Corps Commander, according to the same fundamental principles, and are prevented by this higher control from flying out in eccentric directions.

Objections based on the alleged difficulties of the conduct of such masses are therefore untenable. On the contrary, the demand must be made on the Chief Command that, always in accordance with the strategical situation, it must clearly determine what it requires of the Cavalry, and group them in a suitable manner and in sufficient numerical strength under a

single Leader, even if in the meanwhile there may be a deficiency of the Arm at less important points. This fundamental principle must be adhered to at all costs if full advantages are to be derived from the employment of our Arm, for with none other can the consequences of a dispersal of force exact more terrible retribution than with the Cavalry.

Nevertheless, though the principle must be held inviolate, its application must not degenerate into hide-bound rigidity. 'Strategy is founded on a system of expedients' (Moltke), and hence expediency remains always our highest ideal.

The essential point, however, is that our organization must be made so elastic that we can alter the strength of our units to meet the varying circumstances which may confront us, so that forces may not remain unutilized in one place whilst they may be most urgently required at another.

It is no way essential that the units combined for the express purposes apparent at the commencement of the campaign should remain intact throughout the War. One should be able to detach from or reinforce them, as circumstances require; break up Corps and Divisions, to reform them elsewhere; and employ their Leaders and Staff first with one, then with the other.

As an example of what I have just said, I would cite the manner in which the German Headquarters Command dealt with the Armies during the war of 1870-1871. According to the demands of the moment, the individual Corps or Divisions were grouped in manifold proportions to constitute such units, and the adaptability of this organization proved sufficient to cope with every eventuality.

As an almost ideal type we can take the manner

in which Napoleon dealt with his Cavalry Corps for the same purpose. At one moment his bodies of horsemen unite into Divisions and Corps; at another they dissolve into independent Brigades or regiments, operating singly, only once more to be united into formidable 'Masses,' as circumstances dictate. Here we see no rigid adherence to any rules, nothing pedantic in the method of employment, and the leader and troops deftly adapt themselves to the ever-changing conditions.

This is the ideal to which we Germans should strive to attain, and all the more so in proportion as we are threatened by superior numbers.

CHAPTER IV

INCREASED IMPORTANCE OF DISMOUNTED ACTION

If the changed conditions of modern war have brought about new conditions and demands which require to be considered in the strategical combinations of the Cavalry, I believe that a similar influence must make itself felt in the field of tactics. Whereas formerly the *arme blanche* was recognised as the principal method by which the Cavalry made its inherent fighting power felt, the employment of dismounted action nowadays has gained in importance to such an extent that the whole character of our activity appears completely changed.

Although hitherto the general conception has been that Cavalry should only make use of the carbine for defence, nowadays its employment in attack must be recognised as of the utmost importance.

Undoubtedly, however, it is, and must remain even to-day, the chief aim of every leader in whose veins flows the hot Cavalry blood to seize his opportunities wherever they offer themselves, and, above all, to attack the enemy's Cavalry wherever and whenever accessible with cold steel; but we cannot conceal from ourselves the fact that nowadays numerous problems will present themselves to the Cavalry which can only be solved by fire action.

In the first place, the opportunity will often arise for the weaker side to avoid an encounter in the open field, and, with the help of its firearm, at least to attempt behind defiles, or strong positions, to defy the enemy's superior forces. In such cases the assailant also will be compelled to have recourse to his carbine.

Further considerations reveal that in future, quite apart from encounter with the enemy's Cavalry, our own horsemen will find tasks before them which will make appeal to the rifle inevitable.

The enemy will cover his railways and important depots by troops of the second and third class. Reinforced by the resisting power of popular levies, they will block woods, river crossings, and defiles. Even the guards of their Convoys will be amply provided with far-ranging firearms.

In the pursuit of an enemy's beaten Cavalry we shall happen upon Infantry detachments sent out to cover their retreat, or upon defiles which have been occupied for a similar purpose. Important communications will be held by strong detachments of cyclist Infantry, who will find in woods and villages protection and favourable opportunities to use their weapons.

All these means of resistance lie beyond the field of mounted action, but they must be overcome if success is to crown our efforts.

Already in reconnaissances, particularly in those directed against the enemy's communications, we shall meet with these impediments, and the same will be the case when we come to the strategical pursuit, or the protection of a retreat.* In the pursuit the main object is to keep the beaten enemy on the run, to give him neither peace nor rest until complete exhaustion sets in.

* Compare 'Cavalry Regulations,' § 376.

But for the mass of the Cavalry the idea of a purely frontal pursuit should not be encouraged, for Cavalry, even when supported by several batteries, can easily be held up by any rearguard position in which a few intact troops remain.

The frontal pursuit must in such cases be left to the other Arms, only to be taken up again when the last resistance of the enemy is broken, and the exhaustion of our own Infantry and Horse Artillery renders further effort on their part impossible.

On the other hand, all energy must be devoted to the initiation of a pursuit on parallel lines, in order that we may appear unexpectedly and repeatedly against the flanks of the enemy's columns, with the ultimate intention of anticipating him at some point on the line of his retreat, such as a defile, thus bringing him between two fires in a sheerly desperate position.

Man and horse must in these cases be driven to the utmost limit of their powers of endurance.

It is evident that in such situations the principal rôle falls to the firearm, for only in the fire fight is it possible to break off an attack without loss, in order to appear again at some other point and recommence the engagement. In case of anticipating an enemy at a defile, the rifle will be practically the only weapon that can find employment.

What can be achieved in this direction is best illustrated by Sheridan's Cavalry, whose successful flanking operations against the lines of communication of General Lee's heroic Army brought about the capitulation of Clover Hill.

The charge will only then secure a greater result than dismounted action, when the tactical cohesion of the enemy has been dissolved, and his fire power

utterly broken; that is to say, generally it will be of greater service in tactical than in strategical pursuits —unless, indeed, as at Waterloo, the defeat has led to the complete and permanent dissolution of the enemy's fighting power.

Further, in the endeavour to support the rearguard of a defeated Army in retreat it will be necessary, as soon as we have got rid of the pursuing Cavalry, to take to the rifle, because with the sword alone we cannot hope to make any impression upon the Infantry and Artillery of the victor.

In such cases we must strive to attack with the fire-arm against the flanks of the pursuing columns, in order to draw off their attention from our beaten main body.

Cases may frequently arise when we in turn can hold up the pursuit at defiles and other positions by a purely frontal defence.

In such circumstances a fresh and intact Cavalry, which has not allowed itself to be dispirited or demoralized, may render invaluable services to the beaten Infantry, and enable them, together with the columns and the whole supply organization of the Army, to effect an orderly withdrawal without being molested by the enemy, thus affording to its commander an opportunity of restoring the lost cohesion and tactical order. It will only be the rifle of the Cavalry which will gain for our hard-pressed comrades what is most needed—*i.e.*, time.

The idea is often put forward that Cavalry should not involve itself in an obstinate fight on foot, that it should act only by short surprise attacks, and that it possesses in its mobility the infallible means of circumventing points of resistance. This conception,

which restricts the functions of Cavalry within their narrowest limits, seems to me entirely untenable. It is essentially indefensible when it is a matter of gaining time or of carrying a given position, such as a defensible post on the lines of communication, a convoy marching under escort, the destruction of a defended railway, or in any similar undertaking. It will be impossible to work round such positions—at least when engaged on the greater operations of war—both on account of the widths of the fronts occupied and the possibility of interfering with the sphere of operations of the neighbouring detachments. Often, indeed, the nature of the ground will preclude such attempts, and the experience of 1870-1871 should suffice to show how rarely such a circumvention can hope to succeed. But even where neither the strategic situation nor our immediate purpose compels us to fight, it is not always advisable or expedient to attempt to evade the opportunity. For every evasion leaves the front of our own Army clear, gives the enemy the very opportunity he is looking for to reconnoitre the position of our main bodies, uncovers our own communications (*i.e.*, our own Cavalry trains and baggage), exposes our flank to the enemy, and thus offers him many chances of obtaining tactical results.

Again, these attempts at circumvention lead easily to a loss of direction, which in certain cases might endanger the success of our whole operations; and, finally, the amount of time required by such outflanking attempts may not be justified by the possible results. In such cases it might on the whole be better to attack direct, for turning movements mean always a postponement of the tactical decision, and hence are always a disadvantage to the attacking side.

The theory that Cavalry, thanks to its mobility, can always ride round and turn the positions it encounters breaks down in practice before the tactical and strategical demands upon the Arm, partly by reason of the local conditions, and partly because of the consideration which has to be given to time, to the endurance of the horses, and the position of the following columns.

The same applies to another theory with which one tries to explain away the necessity of dismounted combats. It is maintained that the fire power of the Horse Artillery will suffice to clear the road for the Cavalry; hence the latter will rarely be placed in a position which will require energetic dismounted action on their part. This assumption involves, in my opinion, an altogether overrated estimate of the power of Artillery. The same reasoning would lead us logically to the false conclusion that even Infantry do not require their rifles. One must demand from every reliable body of troops that they will not allow themselves to be driven out of a covered position by Artillery alone. All previous War experience testifies to the impossibility of achieving such results against even moderate Infantry, and it is only with such that we are here dealing. The fact that in 1870-1871 the Artillery often did succeed in driving a weak and demoralized enemy out of localities the possession of which was of no material consequence to him cannot be considered as to the point. Certainly the effect of modern guns is greater than anything of which we have had experience, and will act upon the defender with correspondingly greater intensity; but, on the other hand, it must be insisted upon that the assailant's Artillery will have to act under the increased effect of

the defender's fire power, and the latter will choose different terrain, and utilize it far better than in the past. The actual assault remains necessary now, as ever, to bring about the final decision.

Anyone who has had to conduct staff rides and similar operations of large bodies of independent Cavalry, and has endeavoured to carry these out in the spirit of actual warfare, can hardly have failed to notice the tendency which displays itself with all leaders to take to dismounted action, and will have realized that one has far more frequently to check rather than encourage this tendency; but he will also come to the conclusion, perhaps, that this desire is well founded on existing conditions, and that even a determined Cavalry will have to make use of their fire-arms almost every day; indeed, without adequate employment of their carbines they are no longer able to carry out the most important of their incumbent duties.

Hence, if the use of the rifle is thus shown by instances taken from the most divergent directions to be of absolute necessity, the conclusion follows that even in the battle itself, that point on which all military action is focussed, it can hardly fail to find both its opportunities and its full justification.

In this direction the horsemen of Stuart and Sheridan have set us a brilliant example, taking part on foot in regular pitched battles (Stuart at Fredericksburg, and Sheridan at Five Forks), and deciding, rifle in hand, the fate of numerous engagements, in order immediately afterwards to mount and pursue the enemy by a succession of vehement charges (Stuart at Brandy Station).

The South African War also has shown us what

can be done by a mounted force supplied with a reliable firearm. The Boers fought exclusively as Cavalry (*sic*), supported by Artillery, and some of the most celebrated British Infantry regiments suffered defeat at their hands as long as the numerical proportion was not altogether too unfavourable to the assailants.

Even in dismounted attack, particularly in the later period of the war, they often attained very considerable successes, and thus proved incontrovertibly that the double rôle of Cavalry on foot and on horseback is thoroughly practical; for even the charge itself of these same Boers often achieved brilliant results, although they were lacking in any kind of tactical training for this particular purpose.*

Certainly weapons and numbers have altered materially since the days of the American Civil War, and the experiences of South Africa, largely conditioned by the peculiar topographical conditions and the out-of-door habits and sporting instincts of the Boers, cannot be transferred to European circumstances without important modifications. But even in Europe the Cavalry retain, thanks to their mobility, their power of opening fire in a manner calculated to create the greatest degree of surprise against the flanks and rear of the enemy as soon as they make up their minds to cut themselves adrift from their own Army, and get in rear of the enemy's troops. Such enterprises offer the best guarantee of producing a great moral result. The history of the Franco-German

* I venture to differ from the author. The Boers did not fight as Cavalry. Their whole tactics were those of Mounted Infantry. They did on one or two occasions bring about a decision by rifle fire from their horses, but I can recall no instance where they actually charged—*i.e.*, endeavoured to decide the action by shock.—C. S. G.

War demonstrated this possibility. What might not our Cavalry have achieved in 1870-1871 against the undisciplined forces of the Republic had they been provided with a good firearm, and sought of a set purpose for such opportunities?

It would take us too far to produce the numerous proofs from the pages of our War records; only, as an example, I should like to quote the Battle of Bapaume. In this instance the 7th Cavalry Brigade belonging to the 3rd Cavalry Division lay on the flank —in fact, almost in rear of—the enemy's Army, without being able to come to the help of the hard-pressed 15th Division. Had they on that occasion been able to act by fire, by surprise, and with determination against the rear of the French Army of the North, the results must have been invaluable.

In future, beyond doubt, we shall have to deal with much larger masses of the enemy than formerly, and against them one must make up for want of numbers by an enormous expenditure of ammunition, and further endeavour to reinforce our fire power by repeating-rifles. We must also aim at intensifying the effect of our fire power by attacking only at decisive points. On the other hand, it must be admitted that in the magnitude of the masses themselves there lies the germ of weakness, and in our future wars we can hardly expect to find Infantry as firmly welded together as in the Armies of the past. I therefore by no means hold the opinion that dismounted Cavalry can achieve nothing against Infantry, or that their chances are limited to only very favourable opportunities.

It is, of course, true that the Infantry receive a more thorough musketry training, particularly at long

ranges, and that their education in the use of the ground, as well as in fire control, in peace is naturally better than with the Cavalry.

But the results obtained by the Cavalry in the field practices are by no means so much behind those of the Infantry that any superiority of the latter on the battle-field need be expected. A better firearm for the Cavalry is unquestionably a necessity, for the inferiority of the carbine compared with the infantry rifle is undoubtedly a source of weakness; but, on the other hand, we must insist that the Cavalry possesses sources of strength peculiar to its whole organization which render it materially superior to the Infantry.

I have already pointed out that modern Infantry, when mobilized, cannot be considered like the Cavalry as a standing force—that is to say, that the latter possess much greater tactical and moral cohesion.

Let us look at this question a little more closely.

A squadron at War strength can dismount, after due deduction made of the horse-holders—seventy carbines. These seventy men, if the annual contingent is equally divided throughout the squadron, will consist pretty uniformly of men belonging to all three terms of their service, and will not include more than eight reserve men, so that there will be at most twenty recruits amongst them, whilst the remainder will consist half of men in their third year and half of men in their second year; but these seventy men are led by three officers, generally all on the active list, who in turn are supported by eight non-commissioned officers and one trumpeter, who also mostly belong to the active list.

Against this a section of Infantry which, when raised to War strength, is about seventy-five strong,

consists of about forty men on the active list, of whom half are recruits, the other half men in their second year of service, and of thirty-five reservists.

It possesses, therefore, at the outside twenty trained colour soldiers, and these are led in most cases by a Reserve or Landwehr officer, supported by at most seven non-commissioned officers, of whom four on an average will belong to the Reserve. This Infantry will, as a rule, under normal peace time conditions, as experience teaches us, shoot very well; but it is scarcely necessary to discuss in which body we shall find greater cohesion, or on which one is more likely to be able to depend in cases where moral qualities and fire discipline are all essential, and it is these qualities which primarily condition the number of hits in the firing line. I should only like to add, apart from all other considerations, that the direct influence of the Leaders in the Cavalry and their knowledge of their men is much more highly developed than in the Infantry. It must also be remembered that there are generally much fewer skulkers in the mounted arms, partly because of their longer period of service and closer supervision, and partly because everybody endeavours not to be separated from his horse, and finds in his presence with the men of his detachment the best guarantee of getting back to it. In view of these considerations, I think that our Cavalry can safely claim that they can engage the best existing Continental Infantry with reasonable prospects of success, and against inferior foot soldiers may always preserve its sense of superiority.

Granted this much, then, the scope of our activity is enormously increased.

We can now approach tasks which hitherto had

to be regarded as impossible, because the conviction existed that on the appearance of the enemy's Infantry the rôle of Cavalry *ipso facto* came to an end, unless, indeed, an opportunity could be found for the Cavalry to charge. For now we are in a position, in harmony with the whole spirit of the Arm, to lay principal stress upon the offensive, even when fighting on foot. We can carry through even serious engagements, with chances of success which no longer depend on the favour of special circumstances.

Confident in our own strength, we can apply tactical compulsion where formerly we could only trust to cunning, rapidity, or luck. I hold it to be an altogether antiquated standpoint to assume that Cavalry on foot can only attack with hope of success when it can approach on horseback near to its enemy, suddenly deploy against him in the most decisive directions, and generally is in a position to utilize any special advantages offered by local circumstances.

The campaign of 1870-1871 shows that in most cases in which the Cavalry had to take to its fire-arms it was acting on the offensive, and was compelled to attack the enemy—exactly like the Infantry—in the most diverse situations, and to shoot its way up to him. Under modern conditions it is clear this necessity will be even more apparent, and it would be to deprive the Cavalry again of the independence secured for it by the addition of the rifle to its equipment if one were to limit its power of attack on foot only to exceptionally favourable circumstances. The Cavalry must, in fact, be able to attack on foot exactly like Infantry when the situation imperatively demands it; but if it is to be handled in this spirit, then it will require to be very strongly provided with Artillery.

If it is already considered almost impossible for Infantry to turn well-covered defenders out of their position without Artillery support, the same naturally applies to the Cavalry. In fact, a strong Artillery will be all the more necessary, for the attack with Cavalry should be carried through with the utmost rapidity, and when acting on the defensive its purpose is to gain the greatest amount of time. Against this must be borne in mind that the Infantry should not without necessity be deprived of its due share of Artillery, but I think the two views can be readily united. As long as the Cavalry 'Masses' are out in front of the Armies we can safely give them as many horse batteries as they require, and the same is the case after a victory or after a lost battle. In the decisive battle itself this Artillery reinforcement to the Cavalry must not be expended eccentrically, and must be utilized to the utmost in the most decisive direction on the battle-field itself. Here, too, a certain elasticity of organization is most desirable, and a strict adherence to a prearranged order of battle can only act most prejudicially.

CHAPTER V

THE TACTICAL LEADING IN MOUNTED COMBATS

HAVING admitted that dismounted action has increased considerably in importance, particularly on the offensive, it nevertheless remains the fact that the combat with cold steel remains the chief *raison d'être* of the Cavalry, and when the principles have to be considered according to which troops have to be employed upon the battle-field, the actual collision of Cavalry 'Masses' remains the predominant factor.

The task of the Leader must be to transmit the mechanical power inherent in the troops in the form of momentum upon the enemy. Where he, with a clear purpose before him, acts with daring and thorough comprehension, it is in his power to intensify this momentum many times over; and this holds true with the Cavalry to a greater degree than with any other Arm, for with the horsemen the personal impression conveyed by the appearance and bearing of the Leader reacts on the mass as in no other case. This reaction is further accentuated by the fact that the excitement of motion on horseback, inherent in the performance of Cavalry duties, contains something electrifying, kindling to the imagination and exciting

to the nerves, which communicates its influence to the Leader, and thus in turn supports him.'

On the other hand, the evils of an indifferent Command make themselves nowhere more apparent than with Cavalry. In this Arm every impulse works itself out relentléssly down to the last consequence. Mistakes once made can rarely be remedied. This is the necessary consequence of the short time interval to which their activity is limited, the rapidity of their movements, and the irresistible momentum with which a Cavalry charge once launched presses on with ever-increasing momentum to its final decision.

Whilst thus with the Cavalry the influence of the Command is the most important factor of success, any deficiency in which can rarely be made good by the excellence of the troops themselves, it is precisely with this Arm that it is the least frequently found; for admittedly there is nothing more difficult on the battle-field than correct disposition and execution at the head of a great body of horsemen.

Several factors unite to explain this circumstance. In the first place, only the shortest moment of time is available for consideration, and then this rapid consideration and decision have to be given under the most unfavourable external conditions, at the fullest speed of one's horse, or in the maddening confusion of the mêlée. Further, in most cases it will be quite impossible for the Leader of a Cavalry 'Mass' to take in with accuracy the strength and dispositions of the enemy. The more extended radius of action of modern firearms and the greater distance between the contending forces thereby conditioned must in the future render this much more difficult than in the past. Very rarely will it be possible for the Leader

either to alter or cancel an order once given in consequence of information subsequently received. Even of the ground itself, the importance of which is so much greater for the Cavalry than for any other Arm, it will be impossible for the Leader to form for himself any actual picture. Either it is already in possession of the enemy and of his patrols, or at least in their sphere of action, or it cannot be readily grasped from a single standpoint, and the rapidity of movement allows no time to reconnoitre it sufficiently. Constant reference to maps, even when available, is impossible, and the best of these do not reveal exhaustively the actual nature of the ground to be traversed. The orders must therefore be based on a general consideration of the circumstances, for the Leader cannot gauge with even approximate accuracy the strength of his enemy from the resistance he encounters, like his more fortunate comrade of the Infantry. His only remaining means of influencing the course of the action lie in his intact reserves.

For subordinates, indeed, the case is even worse, for they will rarely find existing conditions in accordance with the conception on which their orders were issued, and will seldom have time to refer to Headquarters for further instructions.

It must, therefore, be apparent that only the most exceptional Cavalry training, combined with high executive talent, can suffice to compensate for all these difficulties. Really successful leading will only be assured to the Cavalry General when the machinery he sets in motion is technically finished down to the last detail.

In the first place, the least that can be demanded is that the observation of the enemy and distribution of

orders are so organized that the system works with absolute certainty. On the former depends the correct choice of the moment of attack; on the latter that the troops are employed in the required direction.

The place of the responsible Leader until the moment of the charge is, therefore, well out to the front, in a position from which he can best overlook the situation as a whole. Even the Leaders of independent units, if possible down to the Regimental Commanders, should remain close to him, and try to see the situation through his eyes. The greatest fault of all is to stick too close to your troops.

Every Cavalry officer must carry his map in his head as well as in his hand, particularly during the engagement. Every Leader must keep before his mind the hang of the ground, the lie of the roads, the peculiarities of the battle-field, with the chances it affords him. Any defects he must try to make good by reconnaissance. Every possible consequence of the collision must have been thought out beforehand.

Never should the Chief Commander take part in the charge personally until he puts in his last reserve, and even then only when he is clear of all responsibility, which by that time will generally be the case. In all circumstances he must be in a position to rally his troops after they have dispersed themselves in a mêlée, and to take measures either to exploit the success, or, in case of reverse, to avert its worst consequences. This does not apply only to the Chief Commander.

Here I would enter a particular protest against the opinion one hears far too frequently emitted, that the place of every Cavalry Leader in the charge is always in front of his command. This only holds good when

units charge as parts of a higher organization, or where smaller bodies—*e.g.*, squadrons, regiments, or brigades —attack as a whole, with no rearward lines or supports to be controlled, or further responsibilities arising out of the charge have to be considered. But this does not relieve the Commander from the necessity of setting a personal example in moments of wavering, or when it appears better, after cool reflection, to risk everything, to carry the men forward to the extreme limit of effort, rather than to reserve himself for subsequent emergencies.

In all other cases the Commander, and his Staff, must avoid becoming entangled in the confusion of a fight in which he must lose all view and control over his men, and at best could achieve nothing more than any other equally brave and determined trooper. It is, on the contrary, his first duty to move in such a direction that he may at all times be ready to influence with rapidity and decision the mechanism of his command as a whole.

If he falls, then his Staff Officer or Adjutant assumes the responsibility of the command until such time as the next senior can be notified of the circumstance. In no case may the continuity of action be interrupted by wasting time in looking for his successor.

When the Cavalry is working in combination with the other Arms the point of observation of its Commander must be connected with the latter by suitable relays, and officers must be sent out into those sections of the ground which cannot be overlooked from the position the Leader has selected.

Combat and security patrols must be sent out in all directions from which the enemy's reserves or fresh bodies of his troops might approach, and even towards

our own rear the ground must be reconnoitred as far as possible by officers, who report the result of their operations, not only to the superior Leader, but to the Brigade and Regimental Commanders. It will also be advisable to keep the officers of the other Arms, particularly of the reserves, as well informed as possible about the nature of the ground and the observed movements of the enemy's forces, so that these may always act with full knowledge of the circumstances. A General Staff Officer should be entrusted with the maintenance of communications with Army Headquarters itself.

As the crisis approaches the troops must be drawn in nearer to the point of collision. As soon as the attack has been determined on, the Leader will be well advised to take up a position on the flank of his troops from which he will be able to overlook the whole field of action and keep the enemy well in view. From this point, having previously instructed his subordinates as to the situation and purpose of the coming combat, and having sent them back to their troops, he will despatch executive orders to the several échelons concerned. The line of attack must be defined with particular care, and a point of sight visible from a considerable distance must, if possible, be assigned to them. No room for doubt must be left open as to which troop it is which is responsible for the direction.

But even with the finest system for reconnaissance and transmission of orders it will be impossible to guarantee the combined action of large 'Masses' for a common purpose, and to put them into the fight, in a thoroughly practical and not parade-ground fashion, unless good observation, able leading, and circulation

of orders are combined with two other most important factors :

First comes the utmost possible independence of the subordinate leaders, down to the limit of the Squadron Commander. Only when these can help one out in cases where an order fails to arrive, or where the circumstances compel a deviation from the letter of the order received, or where these can only be indicated by word of mouth, signs, bugle-calls, or even by riding in the required direction, can there be any guarantee that all will combine intelligently for the common purpose.

This independence must never be allowed to degenerate into selfish wilfulness ; the actual situation, as encountered on the ground itself, must never be considered from the subordinate's point of view only, but rather must always be solved in the spirit of the original conception formed in the Leader's mind.

In the second place, the Leader requires tactical means and forms of evolution which combine, with elementary simplicity and clearness, the greatest possible degree of adaptability. Nowhere else so much as with the Cavalry does the maxim hold good that 'In War only the simple secures success.'*

The prescribed orders must not place a strain on the memory of the Leader or troops, and must operate practically mechanically. Even the most far-reaching movements should never require either detailed instructions or commands.

The application of the word of command should be limited to those units which it can actually control—namely, the squadron.

* Clausewitz, 'Im Krieg ist aller Einfach, uber, das Einfache ist schwer.'

The use of bugle-calls must be restricted to the utmost, and only be permitted in circumstances where no possibility of misunderstanding can arise—a danger not easily excluded where large bodies are acting together.

Even the use of signs can only be relied on in a limited degree. In dust and closed country of course they cannot be seen.

On the other hand, all movements depending on verbally transmitted commands must be executed without loss of the spirit of uniformity.

In practice this is the only form for the communication of orders which can be depended on to act with any degree of certainty under all circumstances.

The Regulations must insure the possibility that, no matter under what conditions, the unit can be formed without many words or commands into the most diverse fighting formations in any required direction, either from column of route, rendezvous formation, or even from the mêlée. Fundamental principles of action against the different Arms must be laid down so definitely that complicated orders in each particular case will not be required.

The rapid change from one fighting form to another must be absolutely guaranteed, and equally so the possibility for each unit to assume that formation in depth called for by the circumstances of the combat, without recourse to complicated orders and movements.*

If these requirements are to be fulfilled, then only such elementary movements must be prescribed and

* The Regimental Commander, therefore, requires his Adjutant and an Orderly Officer, so as to be able to transmit simultaneously his order to both wings of his regiment.

regulated as can be executed under all circumstances, as laid down in the Regulations.

These matters being settled, then tactical regulations should lay down no fixed evolutions, but should confine themselves essentially to forms and principles of action, which should be treated with the utmost clearness and precision.

It is hardly necessary to adduce elaborate proof to show that our existing Regulations by no means meet these requirements in all their sections.

Above all, the movements and deployments laid down for the Regiment are far too formal, based too much on accurate intervals and fixed prescriptions for the movements of the individual squadrons to be suitable for use on the ground which Cavalry must nowadays be prepared to traverse, or to be executed, exactly as laid down, in face of the enemy. Such evolutions are only possible on the drill-ground, where bugle-sounds and words of command can still be heard, and are far too complicated for practical use.

For instance, let us take the case of deployment to the front out of any 'deep' formation—columns of fours, half troops, or the like, which obviously cannot always be executed before the enemy precisely in the manner prescribed, because all must depend on the space available and the distance which separates us from the enemy. The head of the column must suit its movements to these conditions, and in turn the following sections must conform to the movements of the head; greater freedom of choice must, therefore, be left to the latter.

On the other hand, there are evolutions of the utmost importance before the enemy for which the book gives no guidance whatever—*e.g.*, the rapid passage from

the double column into squadron columns, either to the front or flank.

Even for the larger units all the prescriptions are by no means adapted to the requirements of active service. For instance, the relief of lines ('Treffen Wechsel') is an operation of no use except on the drill-ground, and is never attempted even in manœuvres—at least, personally I know no instance of its ever being tried, except as a matter of drill.

That a certain measure of justification may be found for this and similar formations, I do not wish to dispute.

They certainly possess great educational value as a means to the acquisition of the requisite discipline and cohesion, and they are also well adapted for movements beyond the danger zone, when it becomes necessary to steady the troops by the most absolute insistence on accuracy of movement and precision of drill; and that such cases do arise no one who has had experience of war will for one moment dispute.* Hence, even if one may hold the opinion that the same purpose may be equally well served by less complicated means better adapted to practical requirements, one can nevertheless subscribe unconditionally to the soundness of the principle involved. But for actual purposes of combat we require simpler forms and more freedom in their application, and in so far as the Regulations tend towards this end they show a very considerable degree of improvement; for the squadron, Section 330 provides the necessary amount of independence, and Sections 331 and 333 give sufficient freedom to the Regiment, subject only to the limitations referred to

* Rauch's Brigade of the 6th Cavalry Division at Vionville, under von Schmidt, August 16, 1870.

above. Section 346 in particular and Section 348 are also of fundamental importance for the higher commands.* Indeed, I hold the former as the most important concession contained in the whole book, for it practically initiates a new phase in the whole course of our drill evolution, by marking the commencement of the breach with the old doctrine of the Three-Line system ('Drei Treffen Taktik'). It is true that it still lays chief importance on this method, but it no longer regards it as the one royal road to success. Thus we enter on a path on which the Infantry already long ago preceded us, and which, *mutatis mutandis*, offers also for the Cavalry similar great and undeniable advantages. It is safe to predict that Section 346 will prove the starting-point, by sheer pressure of natural conditions, of a fresh series of development in our Cavalry Tactics.

Thanks to these prescriptions, the Commander has now a free hand to arrange his units (Brigades or Regiments) side by side, and to give them the amount of depth that he considers necessary. Hence the commands remain immeasurably more in the hands of their leaders than was formerly the case—a point of particular importance on ground where the view is restricted; and every unit Commander can also form his own reserves, so that reinforcements from the rear will always join their own Regiment (or Brigade), and thus the intermixture of the different commands will be prevented as much as possible; and

* Section 346 reads: 'The above general principles applying to the conduct and relations between the several "Lines" must not be allowed to lead to the adoption of any stereotyped form of attack. The Division Commander has full authority to employ his brigades as he thinks best for the attainment of the purpose in view.'

what a gain this will be towards rapid rallying after the confusion of an encounter will be obvious to every reader.

Finally, and perhaps this is of even greater importance, a far higher measure of initiative will be given to the subordinate leaders than was conceivable under the old scheme ('Treffen Taktik').

These advantages can hardly be over-estimated. There remain, however, yet two other directions in which this paragraph may lead to yet more important consequences.

In the first place, it secures for the Commander himself an immense simplification of the whole mechanism he is called on to control—for he has no longer to occupy his mind with the fundamental conception of the 'Treffen'—*i.e.*, Three-Line System.*

The term 'Treffen' (Lines), in the true spirit of Frederick the Great's day, defines the relation between a leading Line and one or more following Lines, which succeed one another in due sequence. The tactical evolution of the last few years has, however, led

* The 'Drei Treffen Taktik' owes its origin to the study of the Wars of Frederick the Great, and claims to have again brought to life the fundamental principles to which our Cavalry successes in those days were due. Against this view I would point out that Frederick's Cavalry were always formed in two Lines under one common command. Besides these two Lines ('Treffen') there was generally, but by no means always, a 'Reserve'—constituted usually of Hussars only—who, if I do not err, are only once spoken of as a 'Treffen' (Line). This Reserve, however, was under a special Commander, and was quite independent of the two 'Treffen' proper above referred to. Now, no one would venture to suggest that Frederick's Infantry fought habitually in three Lines ('Drei Treffen'), although a Reserve was frequently held back in third Line, exactly as with the Cavalry. The truth really is that the modern idea of the 'Drei Treffen Taktik' has actually nothing in common with the methods of employment of Frederick's days at all.

to this result—that this definition is no longer in harmony with the modern conception attaching to the word 'Treffen.' According to the existing regulations and practice, the second or third Line, or both together, may just as well form the fighting Line as the one which is momentarily called the first. The latter may equally be used for a flank attack or, under a change of circumstances, form the Reserve.

The supporting squadrons, as defined in the new Regulations, or the second or third Line in the attack against Infantry or Artillery, are nowadays the only ones to which the original conception of the 'Treffen' applies.

Whilst at present the designation of particular Brigades, etc., as first, second, or third 'Treffen' (Lines), has practically no bearing on their use in action, but only assigns them a temporary place during the particular manœuvre, we have had to invent, to express the actual conception of the 'Treffen,' or Line—which, after all, one cannot do without—all sorts of designations, such as supporting squadrons, formations according to depth, waves, and so forth. Hence the word 'Treffen' has introduced a complication which finds no justification in the true spirit of the matter. These disadvantages, of course, are least evident when the Division is brought into action from a previous position of assembly; but they are very apparent indeed when it is a question of uniting a Division which has previously been acting in separate detachments upon the field of battle itself. Then we come face to face with the difficulty—in fact, almost impossibility—of adopting the modern idea of the 'Three Lines.'

On the line of march a Division is divided into

Advance guard and Main body, and if moving on several roads, then into a number of such constituent parts (two to each road). From this state of subdivision there result a number of Tactical units which it is practically impossible to fit into the 'Three-Line' formation without incurring great loss of time, and possibly the loss of one's opportunity. Hence, from the retention of this 'Three-Line' idea, we arrive at a tactical dilemma which must react detrimentally on the handling of the whole Arm, as long as the Leaders are compelled by Regulations to assume their 'Three-Line formation' before they can fight at all. It is from this contradiction that Section 346 releases us.

Of equal importance is a further possibility which the wording of the same paragraph throws open to us. It allows, in fact, the Cavalry, no matter in what tactical connection it may find itself, to fight always in accordance with the same principles.

As long as we adhered to the 'Three-Line system,' this, if not impossible, was at least practically inexpedient, for the Regulations took cognizance only of a Division composed of three Brigades of equal strength, were founded on this idea, and did not allow of adaptation to any other distribution of force which might have to be employed.

It has already been pointed out in Chapter III. that they do not apply to a Corps made up of several Divisions, and the same holds good of Divisions of other than strictly normal composition. Everywhere, in cases such as referred to above, the subdivision into Lines ('Treffen') in the spirit of the Regulations would very soon lead to even worse disruption of the units than already happens with normal Divisions of three Brigades. The want of proportion between the

number of the Lines and the columns from which they have to be formed would be more glaring then than nowadays, when the number of Brigades happen to be the same as the number of Lines; with the larger units the difficulty of uniform speed and control would be a factor.

Now, Section 346 helps us over all these difficulties by disembarrassing us of all stereotyped formations based upon numbers alone, and leaves the Commander free to choose in what proportion and in what order he will divide and move these masses.

Under modern conditions this latitude is indispensable, for the amount of force to be applied depends on what is known about the enemy; but the special shape the attack itself assumes, and more particularly its breadth of front, will be determined by the width of front the enemy opposes and the nature of the ground it has to move over; whilst as to depth, this must be decided by our estimate of the quality of the adversary's force, hence his shock power and the amount of his possible reserves.

The consideration of all these conditions may, in proportion to the numbers in hand, lead us to employ whole Brigades, Divisions, Corps, or portions of these units, arranged in the most varied succession to one another. Whether we should attack by 'Wings' or by 'Lines' must depend on the circumstances of the movement, the order in which the troops reach the field, and the nature of the country to be traversed; and generally the preference will have to be given to the 'Wing Attack,' for the reasons we have above developed.

This 'Wing Attack' will, therefore, always have to be employed when time is available to form up the troops systematically for action, or when the lines of

approach of the units lead naturally to the adoption of the formation. 'Lines' only then, when it is absolutely necessary to deliver an attack from column of route as rapidly as possible, and hence the time is lacking for a more systematic formation. Such cases can, for instance, arise in the deployment at the issue of a defile, or in bringing up troops from Assembly formation through the intervals of a crowded battle-field, or under analogous conditions; but even in these cases a foreseeing command will endeavour to facilitate the execution of the 'Wing Attack' by the choice of some such formation as the 'double column,' which admits of deployment to either hand.

Thus we see that our Regulations at least give to the Leader the possibility of choosing the best and most suitable formations for the execution of his purpose, but the latter also must be sufficiently master of his art to know which to select.

Further, it is the duty of the Leader, in the case of mutual encounter between manœuvring bodies of the Arm, to choose the momentarily most favourable form of attack with reference to his own line of approach. It is not easy to lay down in general terms in what manner this can be best insured, for the circumstances of the operations themselves and the nature of the ground are capable of influencing the decision in too many ways. One can only lay down certain general principles which may form a basis in the appreciation of each situation as it happens to arise.

In the first place, one must select one's own base of attack in such a direction that the following blow will force the enemy to retire in what will be for him the most disadvantageous direction, and, conversely, for one's own purposes the best.

But, naturally, in making this choice the tactical advantages or otherwise of the ground must not be overlooked or left to the enemy, for the tactical victory is the necessary preliminary to further results. Further, we should always endeavour to secure the advantage of the 'outer lines' so as to act concentrically upon the enemy. In this position, if beaten, his lines of retreat cross one another, and to avoid this predicament he will be compelled to endeavour to manœuvre across our front, always a most dangerous undertaking.

On the other hand, if our attack fails, we have still the advantage of eccentric retreat, which compels the adversary to divide his forces, and thus opens to us the opportunity of further tactical success if we can concentrate our own men with sufficient rapidity, whilst at the worst we run no risk of seeing our own troops entangled with one another.

It should be our constant endeavour to gain these positions on the 'outer lines' by previous strategical operations, in order to avoid the danger of being compelled at the last moment to initiate wide flanking movements in face of the enemy. Again, a further advantage accrues if we can rest one flank on inaccessible or difficult ground. This flank at least will be secure, so we can spare troops from it to strengthen the other, and thus, perhaps, act with decisive effect.

Finally, when it is presumable that we shall have to deal with considerable numerical superiority, we should direct all our efforts to throwing the whole weight of our charge against the enemy's flank, so as to compel him at the last moment to change his front to meet the blow. The opportunity for such action will arise in cases in which, thanks to our previous

strategic direction, we can succeed in uniting the mass of our forces more rapidly than our opponent is able to do, and this may often be the case where the ground favours our advance and conceals the direction of our march.

Generally, it may be laid down that a simultaneous attack directed against the enemy's front and flank is justified when we have the advantage of a considerable numerical superiority, or when our opponent retains for too long a faulty distribution of his forces; but in all other cases a blow with united force against his flank will give the most far-reaching consequences, as it brings immediate pressure against the adversary's line of retreat, and compels him to employ his own forces in succession, not in a concentrated effort. Hence this form of attack gives the chance of a success even to a force in a numerical minority, as it will often afford it the opportunity of beating the enemy in detail, whereas against a concentrated mass there would be no hope of success at all.

It will be evident that for the execution of such an attack the forms laid down in the Regulations to be observed in the transition from rendezvous to attack formations are—one is almost tempted to write—about as unfavourable as they well can be. It is true they afford, as already pointed out, the possibility of presenting the same fighting formation in succession to any required point of the compass, an advantage which has no practical importance in warfare; but against this they increase the difficulties of deployment for attack to the front to the utmost. If it is necessary, for instance, to send the first Line at the enemy's flank, because at the moment that happens to be the shortest way, the front of one of the following

Brigades is at once masked, and the latter hampered in its movements. Or if it is desirable to employ one of the rearward Brigades for a flank movement or any similar purposes, then either the leading 'Line' must be checked until the others have gained the required position, or it is certain that these latter will arrive too late to co-operate.

Further, the forms prescribed by the Regulations render it more difficult to make use of such assistance as the nature of the ground may offer us.

Plainly, it is very much more to our advantage in the conduct of offensive operations to bring up those units which one has at one's disposal—with the sole exception of a Reserve, which is not to be kept too weak, at deploying intervals on the same alignment—in formations which adapt themselves well to the ground, and insure rapid deployment to the front, with the necessary depth in the supports following. For this purpose I recommend primarily the 'double column' either in Brigades or in Regiments.

This arrangement of the troops satisfies all practical conditions, and insures, above all, the possibility of bringing all forces simultaneously into action, and of carrying out offensive flanking operations; further, it makes it easier for the Commander to take advantage of such support as the ground affords, and to mass his chief strength on one wing; and, finally, it gives us the shortest line of attack upon the enemy, and makes it easier to avoid the use of inner lines. It unites thus all the advantages of the regulation 'Line' ('Treffen') formation, and avoids its many serious disadvantages; hence it should be employed fundamentally wherever possible.

Turning now to the employment of Cavalry on the

battle-field, the first condition which has to be satisfied is to assign to the 'Masses' their proper place in the line of battle. They must not only be at hand when wanted, but also at the spot which promises the most favourable tactical chances and the greatest prospect of decisive results. Further, they must be able to recognise the right moment to take part in the combat.

With reference to the first point, I should, above all, like to call attention to the writings of General von Schlichting.*

Theoretically, the Cavalry 'Mass' is best united on that wing of the battle front which is not supported, but destined for further manœuvres, hence on which the Arm will enjoy freedom of movement as far as the ground allows. Naturally, it will not always be possible to assign them such a place, but their position will result generally from the course of the previous manœuvring.

Either the Cavalry must clear the front of the Army in preparation for the battle, in which case it is not always a matter of free choice in which direction one has to clear off, nor can the Cavalry Commander from his standpoint always determine which wing of the battle front will have to manœuvre; or it must close in from a flank for the decision, in which case the nearest wing is their natural destination. But they must always endeavour—and here I differ from General von Schlichting—to range themselves forwards and sidewards of their own Army. It will only be in cases where it is necessary to keep them in rear of the general alignment—as, for instance, it is proposed

* 'Tactical and Strategical Principles of the Present Day,' part i., chap. vii., B.

to use them as a last resort in the interests of the other Arms, as at Mars la Tour—or where the battle front itself is broken up by the nature of the ground or the grouping of the forces in such manner that the whole engagement is divided into a series of individual actions, as may often be the case in future Wars, that this rule must be departed from.

Such dispositions are always less favourable because they imply in a certain degree defensive action, whereas when placed forward in the framework of the battle the offensive element of the Arm finds its fullest opportunity.

That the desire to occupy such positions must not become stereotyped goes without saying; it must always be conditioned by the general and particular circumstances of the moment.

The course of events may, indeed, require us to take up a position to the flank and rear of the Army, but fundamentally, forwards and to the flank, remains the most desirable disposition. In this position the Cavalry 'Masses' are best prepared to act against the enemy's flank, and can best combine the fire of their own Artillery concentrically with that of the guns and Infantry of the main body without losing their tactical connection, and thus divert the forces of the enemy into eccentric operations. Here they occupy the most suitable position to initiate without loss of time a parallel pursuit of the enemy, or to counter his attempts at pursuit; and here also they are best placed to accept the inevitable challenge of the enemy's Cavalry.

General von Schlichting considers these combats as generally superfluous—a kind of family concern which affects the rival Cavalries only—having no

connection with the ultimate decision between the two armies.*

I cannot share this opinion, which seems to me to be based mainly on peace-time experiences, in which the opposing Cavalry forces generally neutralize one another. In actual War, however, victory more usually opens the path to other and proportionately more far-reaching results. I hold, therefore, not only that such Cavalry duels are essential, but that the opportunity for engaging in them should be sought out from the first; for it is only the defeat of the enemy's horse which can open the door for further successful action against his other troops; otherwise the two Cavalries mutually paralyze one another, as at Mars la Tour.

If in practice it has often happened that this Cavalry deadlock has supervened, and the result of their encounter has remained unimportant on the decision of the day, this result, in my opinion, has always been due to a reluctance on one or the other sides to press the combat to its utmost limitations, as in the above-mentioned instance of Mars la Tour, or because the victorious side has retained neither force nor cohesion sufficient to act against the enemy's flanks, as at Chotusitz and at Prague.

Matters, however, will be very different when the Cavalry is really adequate to its duties—when it not only beats the enemy out of the field, but remains, as at Roszbach and Soor, fit for further efforts in pursuit.

To reach this ideal we must strain every fibre of our being, and never rest satisfied, as on the plateau

* See 'Tactical and Strategical Principles of the Future,' p. 83. The view that Cavalry which has delivered one charge in the day is useless for the rest of the operations, I cannot accept. It finds no support in the facts of Military history—on the contrary, the mos complete refutation.

of Ville sur Yron (Mars la Tour), with half results as long as a single trooper remains fit to gallop and handle his lance. The last man and the last breath of his horse must be risked, and he who is not willing to stake his soul is no true 'Cavalry Soldier.'

If we have successfully achieved this first result—*i.e.*, victory over the enemy's horsemen—then the next step is to secure rapid rallying and the pursuit of the beaten enemy till they are finally driven from the field; and whilst detachments follow up, the main force of our Cavalry must wheel in upon the flank and rear of the enemy's Army, ready to act with all vigour and determination to bring about the final decision when and where the opportunity offers.

That we failed in the campaigns of 1866 and 1870 to obtain this crowning purpose of the Arm is no evidence in itself that the ideal is inaccessible, only proof that neither our training nor comprehension of our duties was on a level with the requirements of the time.

It is certainly possible that our opponent may seek to withdraw his horsemen from the Duel to save their strength for the protection of his threatened flanks; but the consideration remains that by such conduct he voluntarily renounces the best sphere of his own activity—a degree of renunciation on his part hardly to be expected—and precisely because its action to avert defeat may prove of essential consequence, it is our part, in accordance with the offensive spirit of the Arm, to seek him out and destroy his forces before such opportunity arrives.

For this purpose, again, the position to the front and flank is most suitable. The constant threat upon the enemy's communications it implies cannot be dis-

regarded, and will compel him to find means to rid himself of such embarrassment.

Having, therefore, made it clear where the Cavalry should seek its position on the battle-field, the next step is to settle how it should be formed. In this direction General von Schlichting has reached the most practicable solution in laying down that a position in which each Division retains full space for deployment and room to manœuvre for the common purpose is theoretically the ideal, and this would still apply to Divisions united to form a Corps.

It is, indeed, evident that it is far easier to unite troops for action towards the front, than, under the circumstances of the battle-field, to deploy them outwards from a common centre. This latter operation will be all the more difficult in proportion as the troops themselves have been brought forward to the front to meet a coming crisis. The danger then is ever present that, by the necessity of gaining room for deployment,* the opportunity to strike will be lost, or that the endeavour to seize the opportunity will lead to the troops being put in without order and in confusion.

The fundamental principle, therefore, follows that troops, whether Corps, Divisions, or Brigades, should be grouped on the battle-field, preserving always their full deploying intervals.

Of course, local conditions must be taken into account, above all things the necessity of finding cover both from view and fire in the shape of the ground. In practice, therefore, it is only the actual facts as one finds them which can decide as to the best formation to be assumed, but it must always be of advantage to be perfectly clear in one's own

* The 6th Cavalry Division at Vionville, August 16, 1870.

mind as to which disposition to adopt and the consequences which must follow from one's choice.

The chief difficulty always remains—viz., the chance of seizing the opportunity. In the Battle of Mars la Tour our Cavalry failed to solve the problem, and in the subsequent course of the war—particularly against the forces of the Republic—it might often have obtained far better results had it possessed a clearer conception of its mission and better tactical training, as, for instance, in the action at Coulmiers, where we missed a grand opportunity.

The more difficult it becomes, with every increment in the range of firearms, to recognise our opportunities, the more essential is it that we should take the field with a thorough knowledge of our tactical power and its limitations, and it is above all things necessary that we should keep well up to the front, and not shirk even *heavy punishment* if by so doing we can best secure opportunities for great results.

If this end is to be obtained, then every Cavalry Commander requires to have a complete grasp of the nature of the Infantry combat. He must be able to estimate with as equal certainty as an Infantry General the general course of an engagement, the consumption of reserves, and the gradual moral degradation of the enemy's foot soldiers.

At any moment he must be able to grasp in his mind the whole balance of forces in conflict on any point of the battle-field, so as to be able to decide whether the employment of his own command at any particular point and time is justified by the general situation of affairs.

It is, and always must be, the moments of great crises which give the Cavalry the best opportunities.

Since attempts to ride through the zone controlled and swept by effective Infantry fire may be looked on as synonymous with self-destruction, only such moments must be chosen for a charge during which the enemy is prevented from bringing his full fire power to bear against the assailants. These, however, only occur—except always where the nature of the ground allows of a thorough surprise action—when the moral disintegration of the enemy's Infantry is such that, under the impression of the threatening Cavalry attack, they are no longer under control, or when they are so completely taken up with their own fire action that it is impossible for them to concern themselves with the coming danger. Where such opportunities arise they must be seized with lightning-like decision and be exploited with the utmost energy. On the other hand, one should never allow one's self to be induced to undertake charges in which the probable losses bear no reasonable proportion to the possible results. Such conduct could only lead to the purposeless sacrifice of men and horses, just as happened to the French Cavalry at Woerth and Sedan.

We can always take as an example the wise restraint exercised by von Seidlitz at Zorndorf, who, in spite of the Royal Command, refused to attack because he did not consider that the right moment had arrived.

The Leader must always keep before his eyes the demands which either pursuit or retreat may make on his horses. One should never sacrifice, to secure results of secondary consideration, means that can be used to better purposes at other times and other places, for the calls which may be made upon Cavalry after the battle are quite exceptional in their nature.

When, after long marches, hours of fighting, and heavy losses, the exhausted victor bivouacs on the hard-won field, when the day is drawing to its close, and the shadows are spreading far across the pastures, then the real work of the Cavalry begins; then, without drawing rein, the horsemen must press forward to intercept the enemy's retreat, attack him anywhere where he least expects it, and harry him to utter exhaustion and dispersal (see Book I., chap. iv., l. 4); or it must, under the difficult conditions of a retreat at night, sacrifice itself in charges or in protracted fire action in every direction in which the pursuing Army can threaten danger to the retreating columns. In such situations they must be prepared to hold suitable positions by the hour, without thought for their own retreat, without any knowledge of the general situation, and without any connection with the remainder of their forces. Threatened in flank and rear, and yet unshaken by the general collapse, by the flight and panic of their comrades, they must hold their own, relying on their own strength and self-reliance. These are the conditions which make the highest demands both on the material and moral excellence of the men, as well as on the indomitable energy and skill of the Cavalry Leader, and to few mortals is it given to prove equal to such contingencies; hence one must prepare one's self beforehand for such situations.

Primarily one must remember to give opportunities to both men and horses to feed, water, and rest even during the progress of the battle. One must endeavour, even while the fight is still raging, to become perfectly clear in one's own mind as to the possible lines of retreat, and the probable ulterior operations. One

must try to impress upon one's memory the lie of the roads according to the map, and the important defiles and positions which might be favourable either to pursuit or retreat, in order to be able to act at the right moment, without loss of time or hesitation, in full cognizance of the circumstances of the case. *Nothing helps a decision more than a complete intellectual command of the situation.*

Hence we see that the leading of Cavalry has been rendered immeasurably more difficult by a whole series of external considerations, as we have shown at the beginning of the chapter; that at every moment the highest demands will be made on the intellectual perception, the boldness and strength of character of the Leader, if on the battle-field of the future he is to handle the Arm with any prospect of success; and that the best Cavalry under modern circumstances must fail if their Leaders prove unequal to their task.

CHAPTER VI

TACTICAL CONDUCT OF DISMOUNTED ACTIONS

If, in the shock between mounted men, the genius of the Leader is the principal factor of success, nevertheless, the successful conduct of a dismounted combat and of all the variations this form of action may assume make almost equal demands upon his capacity. For the timely recognition of opportunities which can only be turned to account by recourse to fire power, the transition from one form of action to another, the skilful and systematic arrangement of a dismounted engagement, require such a complete command of the situation and such certainty of military judgment and decision of character that the combination will be almost as rarely found.

Moreover, in the power of holding the balance correctly between fire power and shock, and in the training for the former never to allow the troops to lose confidence in the latter, lies the real essence of the Cavalry spirit. This, whether it be in the working out of some great strategical design, or in joining hands with the other Arms to obtain by united fire action some common purpose, implies a balance of judgment and absence of prejudice of the rarest occurrence in normal natures.

The essential point which differentiates the action

of Cavalry fighting on foot and of Infantry engaged in the same operation is the dependence of the former on their horses; and to arrange that under all circumstances of the combat the relation of the men on foot to their means of locomotion shall be suitably maintained is at once the most important and the most difficult task that falls to the lot of the Leader.

Primarily we have to decide whether we intend to fight with mobile or immobile horses,* and in every case the question arises how the conditions of the moment, whether in attack or defence, can best be dealt with.

Turning first to the attack, as the most important form of action, consideration leads to the following conclusions: If the advance is made with 'mobile' detachments, then in case of success the horses can be led forward after us. It is then easy to remount, and continue the prosecution of our ultimate purpose. If, on the other hand, we fight with 'immobile' detachments, one cannot at once pursue one's successes with the same body of troops with which such success has been won. Either the position which has been captured must be retained for some considerable period, or we must go back to where the horses were left, at the cost of considerable loss of time, and at the risk of intervening circumstances robbing us of further opportunity. Neither operation commends itself to the true Cavalry spirit.

On the whole, in attack the difficulty is best met by working with 'mobile' detachments, and the requisite number of rifles in the fighting line can

* When only three men in four dismount the horses are said to be 'mobile.' When the proportion is greater the horses become 'immobile.'

then be provided by dismounting men from a larger number of units—Squadrons, Regiments, or Brigades.

From this principle one should only deviate when, owing to the proximity of the enemy's Cavalry or other circumstances, it is absolutely indispensable to keep a strong mounted reserve at hand, or when it can be foreseen that the number of rifles available, if the 'mobile' form is preferred, will obviously not be sufficient for the appointed task; for it must never be forgotten that the rapid attainment of fire superiority must be striven for under all circumstances.

If we turn to the consideration of the Defensive, our conclusion must be the exact converse.

The maintenance of fire superiority now becomes the primary objective, and since, in case of success, a general advance is precluded by the very conditions which compelled us to adopt the defensive rôle in the first instance, and further, owing to the conditions which surround a defensive combat generally, particularly the nature of the ground, it is usually practicable to bring the led horses closer up to the firing line, which remains stationary, and does not, as in the attack, constantly increase the distance between the two, it will be wiser to adopt the 'immobile' detachment as a fundamental proposition.

This gives us the further advantage of being able to retain a larger mounted reserve in hand for the initiation of a possible pursuit, and one should only depart from this principle when special circumstances make it appear desirable to advance rapidly after the decision of the fire fight, and the ground compels us to leave the led horses far behind the actual shooting line of the position.

Next to this question of 'mobile' or 'immobile' detachments, the Commander must decide how far away from the actual field of action he should dismount his men.

Fundamentally, the idea must hold good that one must ride up as close as possible to the line to be held or the position from whence the advance is to be made; and the limit to the mounted approach is only set by the necessity of retaining cover, at least from sight, for the led horses, and time enough, in the event of failure, to insure that the men can remount before fire can be brought upon them, even from a distance. The possibilities of becoming exposed to the indirect fire of Artillery must not be left out of consideration altogether in the solution of this question.

Hence, it can only happen very rarely, and then only under exceptionally favourable topographical conditions, that a suitable position for the led horses can be found in immediate proximity to the actual line of action.

We may, however, be less particular when, in fairly favourable country, it is advisable to engage, without the intention of courting a decision, our object being only to annoy the enemy by sudden fire, disappearing again as soon as he retaliates, or when one is reasonably certain of success, as against inferior or badly shaken troops.

But when such favourable conditions are not present, and a tactical repulse is always possible, then the place for the led horses can only be found so far to the rear that the enemy cannot take us under fire whilst in the act of remounting, and circumstances render it improbable that this emergency can arise

before we have succeeded in breaking off fighting contact with the enemy.

The Commander, therefore, who decides to undertake a serious fire action must be perfectly clear in his own mind that by the act of dismounting he has severed his connection with his horses for a very considerable time; for if the enemy's resistance proves more obstinate than originally anticipated, and it becomes clear that the original purpose is not to be attained with the available means, the expectation that after once engaging the enemy the fight can be broken off and the horses remounted will in most cases prove entirely illusory.

Since this operation of discontinuing a fire combat is most difficult to carry through, even for Infantry, the dangers are immensely greater for mounted men, owing to the added complication of their led horses. Only the passivity of the enemy, or unusually favourable topographical conditions, as in South Africa, can alter the general soundness of this conclusion; and it is entirely impracticable to escape these consequences by any attempt to lay down a limit and distance beyond which the fight is not to be prosecuted, in the hope that by so doing we can safely break off a combat once commenced. Generally it must be accepted, as laid down in Cavalry Regulations, Sections 362 and 364, that a fire action once accepted must be carried out to the end, unless the arrival of fresh troops on the flanks makes its interruption possible.

One must never, therefore, in reliance on this possibility of withdrawal, allow one's self to be led into the mistake of keeping the led horses too close at hand; but the resolution to engage in a dismounted action must always involve measures which fully recognise

the serious possibilities such decision entails, and must be on a scale which will insure the necessary vigour of execution.

Hence, since in all cases in which a serious dismounted combat is absolutely necessary it is essential that the horses should be left in the greatest attainable security, the place for them should be selected in such a manner that they are protected against possible turning movements by the enemy—that is to say, behind suitable shelter provided by the ground, or behind defiles that can be easily defended. In cases in which these conditions cannot be complied with, which in practice will often arise, their security must be provided for by a sufficient reserve of mounted men, particularly when the enemy's Cavalry is in the vicinity, for 'immobile' detachments are practically at the mercy of every mounted patrol; and as a further precaution it will be well to spread around them a sufficient web of reconnoitring and security patrols, and to arrange for the support of one's own batteries.

The covering of the led horses, however, is not the only duty of the mounted reserve: the protection of the Artillery also devolves upon it, and generally it must be ready to meet any of the demands for which Reserves are usually set aside. Hence it will have to provide not only for the safety of its own side and all pertaining thereto, but it must also threaten the enemy's flanks, undertake turning movements, reinforce, if necessary, the fighting lines, pursue the enemy, or cover the possible withdrawal of its own dismounted combatants; and, further on the offensive, it is its special mission to hold the conquered ground when the dismounted detachments are called off to remount,

and to continue to carry on the original mission, interrupted by the combat, until relieved by the men who in the meanwhile have regained their horses, and again assumed the rôle of mounted combatants.

The first point the Commander will therefore have to decide is, how strong it will be necessary to make his mounted reserve if it is to suffice to meet all these requirements, and then whether, with the remainder of the men in hand, he has any prospect of successfully carrying out his immediate purpose. From this it will depend whether he determines to fight or to reach his object by other means. In general, the Reserve can be reduced in proportion to the weakness of the enemy's Cavalry, and to the depth of the zone of security his patrols have been able to secure for him.

Having by this line of reasoning determined the number of men he can afford to employ on foot, he must next make up his mind as to their tactical distribution.

In this case there can be no doubt that the method of employment by 'Wings' must commend itself even more than in cases involving only mounted combat, for, quite apart from all the many admitted advantages of this form, in no other way is it possible to guarantee that the dismounted men can safely and rapidly regain their horses.

The 'Line' system would involve endless confusion and loss of time in sorting them out amongst their respective commands.

As regards the general considerations of width of front and depth, the same principles apply as in the case of Infantry. In the defence to gain time is the main object, and the problem to be solved is to secure

at one and the same moment both fire superiority and a sufficient reserve to meet all possible emergencies. A skilful utilization of the ground, previous ascertainment of the ranges, ample ammunition and sound fire discipline, will, as with the Infantry, be the best means of attaining one's object.

Special conditions only arise in the defence of villages where the horses can be brought under cover close to the men, and here it seems to be necessary to distinguish between several possibilities, all of which require different treatment.

If the place is to be obstinately defended, then the horses must be kept on the side away from the enemy, or in the centre of the buildings, the defence of the boundaries be suitably arranged, and the men told off to their several sections. The exits must be barricaded, and the approaches entangled with wire.

A strong inlying piquet, to act eventually as a reserve, must be placed in a central position.

If, however, the place is to be given up when seriously attacked, and resistance is only to be sufficient to cover withdrawal, then the horses should be kept saddled up in the stables, etc., and arrangements made to withdraw them rapidly without exciting attention.

In the first case, as against Infantry or mounted Cavalry only, one can count on holding one's own without serious losses for a considerable time; but the matter becomes very different if the enemy's Artillery is also to be reckoned with, for modern shell fire will soon involve the destruction of all the horses, and one must be prepared to find retreat practically impossible once one has allowed one's self to be committed to an engagement of this nature. Hence such positions

should only be occupied and defended when it is safe to count on support from following troops, or when it is improbable that the enemy will be able to bring Artillery into action. Such situations may frequently arise in the advanced lines of a concentration zone, in which the villages nearest the enemy form part of the general system of security.

In all other cases, and particularly as regards the advanced squadrons, it will be better to take up 'Alarm' quarters, and the more unexpectedly the enemy can attack us the more stringent must be the precautions we adopt.

If we decide to retire, a portion of the men will be detached to take the horses out of the village, or to have them drawn up in readiness for mounting behind the position selected, and meanwhile the remainder of the garrison must compensate for their diminution in numbers by a greater expenditure of ammunition, thus holding the enemy till all is ready, and then slipping rapidly back to their horses. Without losses —amounting, perhaps, to the sacrifice of the last covering party—such withdrawal can hardly hope to succeed; but previous systematic arrangements give the best chance of success, and the same prevision will be equally necessary, even if the place is to be held at all costs, for the situation may always change, and a retreat become advisable.

At night, however, the aspect of affairs changes; then any attempt at withdrawal is to be deprecated, and, as a matter of principle, must not be contemplated. Even if the enemy breaks into the place by surprise, it is still better to fight him on the spot rather than to risk the certain destruction of the whole detachment by retreat. A successful resistance is in such cases

all the more probable, since in the darkness the use of the enemy's Artillery is practically precluded—at any rate, can attain but little result. Only the squadrons far out in advance, and thus liable to be surrounded on all sides and captured before help can arrive, will have to be prepared for a night withdrawal before the assailants can close in around them.

As to the principles to be observed in such cases, there should be no room for doubt. Everyone should know what he has to do when the case arises.

Turning now to the consideration of the conduct to be observed in attack, it is clear that here also the same fundamental ideas apply as with the Infantry. Dismounted Cavalry must be prepared to work their way up to decisive distances, to break down from this limit the enemy's resistance, and finally to carry the position by storm. Hence the fighting line has need of constant reinforcements to give the necessary forward impulse, and hence we require the same distribution in regard to 'depth.'

Nevertheless, it would be a great mistake to adopt on this point any stereotyped formation. It must not be overlooked that the essence of such Cavalry attacks is rapidity of execution. Hence in all cases where this necessity for rapidity arises the endeavour must be made to bring from the very first as many rifles into the firing line as possible, and it follows that the greater the fire power thus obtained the less the need for subsequent reinforcement.

If we try to picture to ourselves the conditions under which these dismounted Cavalry attacks can occur, it is evident that only in the most unusual instances will the necessity arise of launching them against wide fronts of dense lines of unbroken Infantry; on the

other hand, we shall often be called upon to capture isolated villages, etc., such as posts on the line of communication, railway-stations, and important defiles, and in all such cases it will always be possible to combine attacks simultaneously against both flanks, front and rear. Thanks to its mobility, the Cavalry is exceptionally well suited to the performance of such undertakings, because it can combine both attack and surprise to the best advantage.

If, thanks to this possibility, it is practicable to diminish the weight of the front attack, it follows, again, that less depth—*i.e.*, fewer successive reinforcements—will require to be provided; but these can only be suppressed altogether when the object aimed at does not imply the actual maintenance of the position to be assaulted, but our purpose is only to reach a point from whence to overwhelm the enemy with fire, previous to riding him down by our closed squadrons, or to break off the action again and retire as soon as a counter-attack develops. These are cases which will often present themselves: either when in pursuit it is desirable to strike unexpectedly at the enemy's columns, or during a battle, when it is feasible to molest and disturb his reserves.

In the above paragraphs I have put together the chief points to be considered in the action of dismounted Cavalry when acting unsupported; it remains now to consider the rôle assigned to the Horse Artillery allotted to it, if only to bring out those parts which, in my opinion, lie beyond its proper field.

If we admit that in general, as between two great Cavalry masses in actual collision, the guns can play an important part, I must yet insist that the measure of this importance should not be overdrawn; for it is

only when the former are confined to a defensive attitude—for instance, when they are still under cover or behind sheltering folds of the ground, or when moving in a widely-extended screen to mislead the enemy and tempt him into fire-swept ground, in order to fall upon him when he has ventured into the trap—that much is to be expected from their co-operation.

But as soon as the Cavalry begins to advance, the part the Artillery has to play drops into the background. Then the guns become simply an impediment, because, since they generally require a special escort, they subtract from the total force available for the actual shock, and always act more or less as a pivot, which hampers the free movement of the Cavalry.

On the contrary, the Cavalry must never allow itself to be influenced in its movements by the position of its own Artillery. The latter must adapt itself unconditionally to the movements of the former, and must endeavour to conform to its evolutions, so as not only to co-operate with it, but, if possible, to dispense with a special escort.

It must, therefore, be the endeavour of the Artillery to keep well out in front of the Cavalry, so as to take the enemy under fire, and anticipate his batteries by coming into action first. The latter is a most important point, for it is the essential duty of the enemy's gunners to divert and beat down the fire which we endeavour to bring against their horsemen.

If we can only succeed in unlimbering first, they are bound to accept the law from us, and are thereby prevented either of availing themselves of the advantages of the ground or of conforming to the tactical intentions of their Leader.

The best position for Artillery must always be behind some sheltering roll of the ground, where it requires none, or at the most a weak, escort; and this desideratum will be best fulfilled when it is on the inner—that is, the supported—flank of its Cavalry, because in this position it can presumably remain in action longest, and hampers the movements of its own force least. Similarly, in pursuit or in covering a retreat its sphere of activity is distinctly limited. Its action can only then become effective when the actual tactical pursuit—*i.e.*, with cold steel—ceases, the combatants have disentangled themselves, and the strategic pursuit sets in.

The mobility of the target must naturally influence the fire effect to be expected from the guns, as it increases the difficulty of 'ranging,' and limits the possible duration of action to a few moments.

The batteries will only then be able to turn their fire on the enemy's Cavalry when the latter show themselves in considerable masses moving at the slower paces. But when the Cavalry sweep forward at full speed, the most they can do will be to take some stretch of ground through which the opposing Cavalry must pass, and on which there is still time to range, and then turn on shrapnel fire to its utmost intensity.

But even for this the opportunity will only then arise when either our own Cavalry holds back, the enemy's Artillery does not require our full attention and fire power, or, finally, if our own guns are not attacked by the enemy's Cavalry.

In view of all these considerations, it follows that it is impossible to assign a decisive importance to the participation of a few Horse Batteries in the actual shock of the opposing squadrons. Nevertheless, one

should always do one's best to use to the utmost such Artillery power as is available, and particularly if there is any doubt as to the strength of the enemy, and we have reason to suspect that he possesses a marked numerical superiority.

The chief rôle of the Artillery must always remain the support of dismounted action of Cavalry in attack and defence; in the battle, protected by their own horsemen, to strike against the enemy's flank and rear, shell his columns on the march, to drive him out of weakly-defended places or defiles, and in all similar circumstances, such as war always develops afresh, to inflict upon him the utmost possible damage.

In all these cases the batteries can choose their own positions and the nature of their fire with absolute freedom, according to the fundamental principles of their own Arm; they have time to pick up their own range, and to insure results by the duration of their action.

CHAPTER VII

STRATEGICAL EMPLOYMENT OF CAVALRY

The attempt has often been made to advance formal principles and rules for the strategical, as well as tactical, employment of the Arm, which will give a more or less safe foundation on which to base the grouping and employment of the available forces.

Some regard a Cavalry Division as normally deployed when two brigades march on separate roads in first line, with the third following behind the centre in Reserve. Others want to see all brigades on one front, side by side; whilst yet others wish to see two brigades on one road, whilst the third pursues the same objective on a country lane.

Even our Cavalry Regulations—which on this subject actually ventures to trespass on strategical ground—lays down (see Section 318) that 'in Reconnaissance the mass of the Division must be kept together until the enemy's Cavalry has been beaten out of the field.'

I hold all these attempts which only hamper the free strategic employment of the Arm as not only mistaken, but contrary to the very essence of our being, and for the same reason I hold them even to be detrimental, because they are calculated to produce thoroughly false views as to the conditions and demands with which in practical warfare we are con-

fronted. All these regulations fall to the ground the moment they have to be applied to strategical units of variable dimensions. Further, as I have developed above, the tasks which may fall to us are of such different natures that they cannot possibly be all solved by the same formulæ.

The strength of the enemy must naturally exercise decisive importance on the whole character of our action and the distribution of our forces. The lie of the roads and the nature of the country also exercise their influence on our decision.

To this must be added the fact that, in view of the many strategical necessities of a great Army, the Headquarters cannot always be in a position to allot to the Cavalry a clearly-defined task either of reconnaissance or security, attack or defence; thus higher considerations may prevent the massing of the Cavalry on a single road or any other similar simple distribution. More often than not one will have to suggest the simultaneous attainment of the most varied objectives, and the Cavalry Leader will be lucky if he is not called upon to solve problems of the most heterogeneous nature, things which in their execution mutually exclude one another.

Hence one can only lay down the most general principles to govern the strategical employment of the Arm, and to meet this difficulty it becomes all the more important to develop the capacity for endurance of the troops to the utmost, so that they can successfully deal with these many variable demands.

As to how far the independent Cavalry should be thrust out in front of the following columns of the Army, all that can be laid down is, that the wider the fronts and the deeper the Army—hence the longer time

the Army will take to deploy, concentrate, change its position, or execute any similar operation depending on the reports of the Cavalry—the further that Cavalry must gain ground to the front.

As to the principles governing the formal arrangement of the troops in contradiction to all attempts to lay down stereotyped formations, all that can be said is that every strategical operation, if for no other reason than to allow of reconnaissance and secure safety, requires a certain extension in breadth; but the combat itself demands concentration.

It follows from the above that the Cavalry Commander must in every initial case weigh in his own mind how much the existing circumstances may allow him to extend, and, on the other hand, how closely they compel him to keep concentrated, and he will only be able to reconcile the dilemma when he is actually clear in his own mind as to the tactical and strategical results his conduct in either case will involve.

If the essence of his duty is to secure and to screen, then, as stated above, extension and subdivision of his command naturally follows. But one must keep clearly before one's own eyes that any concentration for a combat jeopardizes the performances of these tasks, for the concentration for combat necessitates the uncovering of the front, which it is the very object of the enemy to bring about and take advantage of. Further, the wider the front, the less becomes the possibility of timely tactical concentration; hence, under such conditions, one would generally have to renounce the temptation to engage in combat with a positive object, and content one's self with keeping the enemy at a distance, for this purpose availing

one's self to the utmost of the advantages the ground may confer, and such support as the reinforced Horse Artillery and mobile Infantry (in vehicles) can afford.

When the width of extension becomes very great it will be an absolute mistake to keep back reserves, since by doing so the actual front is weakened, whilst there is no guarantee that the reserve can arrive in time at the threatened point.

Further, the wider the front becomes, the greater the difficulty of strategical change of direction.

A similar extension of front as that above indicated in this résumé of 'Security' duties may also become advisable when engaged on 'Reconnaissance'—for instance, when lengthy obstacles, such as water-courses, mountains, etc., only traversable at bridges, dams, or defiles, have to be surmounted.

In such cases, especially when resistance is to be anticipated, it will rarely be possible to count on being able to surmount the obstacle in one single column, since even unimportant forces under such circumstances can oppose a very protracted defence, and neutralize a large numerical superiority. When these difficulties are met with, it will be necessary even in reconnaissance to divide one's force into several columns, as then there is always the chance of successfully piercing the enemy's front at some one point, and thence rolling up his resistance all along the line.

Even in open country conditions may be encountered that render the subdivision of one's forces over a considerable extent of front desirable—*i.e.*, when it is necessary to find the enemy, and fix the fact of his presence in certain specific districts. As an example, the conduct of the Cavalry after the Battle of Grave-

lotte (August 18, 1870), when it became imperative to ascertain whether MacMahon's Army was marching to the north-eastward or not.

Here it was indispensable to sweep out a wide area. To attempt such tasks with patrols alone is unadvisable, for these always require a certain tactical support behind them, by which they can be either reinforced or relieved.

Still, the point must never be lost sight of, that, since the enemy will also seek to screen his operations, a decisive collision may become necessary at any moment to tear his screen asunder. Hence it will be better, in opposition to the principles laid down for 'security' only, to keep one's principal force in groups or masses, possessing considerable striking force, and to march in such manner that a certain degree of concentration is always attainable while meeting the necessity for extension in breadth by smaller reconnoitring patrols.

Against an opponent whose general whereabouts has been ascertained, whom one is determined at any price to beat, in order then to reconnoitre, one's troops must be kept in hand, so that their complete concentration is assured in all cases, and only to divide them to the degree rendered indispensable by the general direction of the roads and the nature of the ground to be traversed. The same conditions also hold good where surprise is the essence of the undertaking. In this case it may even be advisable to suppress one's own dispositions for security, and accept the risk of being taken at a disadvantage, rather than run the risk of having one's intentions prematurely disclosed.

Tactically the greater concentration guarantees

tactical success, and strategically it allows greater freedom of movement and changes of direction to meet altered conditions; but one must never lose sight of the technical drawbacks such closer concentration entails.

The zone of reconnaissance is naturally always of less breadth than with divided columns; hence the possibility of screening the march of troops in the rear is diminished, the risk of being turned is increased, and the possibility of delivering a stroke in the air is not inconsiderable.

If the enemy wishes to evade us, we have scarcely any means of holding him until our main force can arrive; and finally, this condition of close concentration by no means guarantees always and everywhere either superior readiness for action or a more favourable deployment. Cases can arise in which strategic dispersion will prepare the way for tactical encounter even better than the concentrated advance; and this is particularly so when, to attain the object of our mission, a wide turning movement is necessary, for this will generally be best brought about by previous strategic dispositions; whilst the deployment of a mass from a defile or its retreat may be entirely prevented if attempted in a single column.

Hence every principle has its limitations, and circumstances will always arise which defy all stereotyped formations. Thus, even for 'screening' and 'security' cases can arise under which concentration is justified, even where the nature of the ground does not imperatively dictate it, as when, for instance, the insufficiency of one's own force excludes any distribution in breadth, and compels one to combine all efforts for the defence of decisive points. And it is precisely

on the defensive that it may be of advantage to deal a blow with the concentrated strength. Equally on the strategic offensive, dispersion may be necessary, as when the enemy retreats eccentrically; or if it is necessary to occupy districts of considerable size to break down the resistance of the hostile population, or to interrupt railway communication over a considerable area.

Finally, all principles fall to the ground where the enemy's Cavalry is finally beaten out of the field, or by a succession of mistakes he gives openings which we can seize with advantage. Thus our conduct always remains dependent on the topographical nature of the country, on our own purpose and the opposition of the enemy, and only one law governs all cases — namely, expediency. The greater art of leading will naturally be required when the necessity arises to operate with more or less widely-separated columns. In all such cases everything depends on the endurance of one's troops. The principal difficulty in the way of execution lies in harmonizing and maintaining the movements of the separate detachments.

If one has to deal with Infantry only, then, since their rate of march is almost always the same, it is easy to calculate approximately where the several columns may be found; but it is quite different when one comes to deal with Cavalry, where the different Leaders may adopt very different rates of movement, or may have such variations forced upon them by other circumstances, and hence one has always to deal with quite indeterminable factors. This difficulty can never be altogether eliminated; one can only counteract it by laying down from the very first

instructions for the advance of the several columns, according to time and space, from which no deviation is to be permitted without sufficient reasons, and organizing the circulation of orders and intelligence in such a manner that it will work with certainty. These two precautions supplement one another. If one can calculate approximately where the several detachments are to be found at a given time, then reports can be sent by the shortest way, and will reach their destination without delay.

It will be decidedly advisable that all detachments should report to Headquarters, and if possible to all adjacent columns, without distinct instructions, and at certain time intervals, both as to their advance, their bearing in relation to adjacent columns, as also any news they may have obtained about the enemy.

Nothing is more important to the Cavalry Leader than to be constantly informed as to the general situation of the units he controls; but it is equally important that the several groups should know what is happening to one another, for only then can they act in the spirit and in combination with the whole.

This is all the more essential because, owing to the rapidity of all movements, and to the great extension which has often to be given to the front, it is impossible for the higher Command to interfere in good time, or to obtain information from its subordinates in any emergency that may suddenly arise. The results, then, depend entirely on the independent judgment of the man on the spot, and suitable action can only be obtained when the latter is kept fully informed as to the nature of the general situation.

We should, therefore, avoid as far as possible the

despatch of orders to individual Commanders without at the same time informing their comrades of the bearing of such instructions.

Wherever possible in strategical operations, the orders should be comprehensive, and should be circulated simultaneously to all subordinates. Where it is impossible to convey an order simultaneously to all, those not immediately concerned in their execution should be informed of its issue as soon as possible. Certainly, this method requires a large number of gallopers, orderlies, and so forth; but this apparent waste of energy will in the end prove the best economy, because the troops will thereby be spared many unnecessary movements.

However great the endeavour may be to diminish the difficulties of the united action of separated bodies in the combat itself, the issue of the Cavalry fight is decided so rapidly that its consequences must have begun to show themselves before either the adjacent columns or Headquarters have learnt of its commencement. We must, therefore, be clear in our own minds that successful combination of separated bodies in action can generally only be effected when the opponent is either stationary, in which case one can time one's movements against him, or when, by a protracted defence at other points, the more distant bodies have time and opportunity to reach the field.

Even when the approach of the opponent's forces has been discovered in time, it will be difficult to calculate with any degree of precision the exact point at which collision will occur, as the marching rate of the enemy's Cavalry must always remain an uncertain factor. Hence it will not suffice to evade the enemy's advance until the adjacent columns can unite, as one

cannot assign to them any definite point of concentration where the distance between the columns is at all considerable. Any attempt to concentrate strategically against an enemy in movement without at some point fighting to gain time must be dismissed as illusory. In all these cases one must not hesitate to take to the rifle, and to utilize all available means of defence.

Similarly, when advancing in separated columns, it will be well to advance from one defensive section to another in rushes, and not to go beyond any one of these until fairly assured that one can reach the next without encountering the enemy's Cavalry.

If one should have the misfortune of being surprised in a district which affords no points of support, then one must retire to the next best one in order to give the adjacent columns time to swing in against the enemy's flanks. The sound of the guns will be indication enough to these to hasten their pace.

The more important it is, therefore, to march to the sound of the guns in order to save time, the more careful must one be in opening fire without sufficient cause. On the one hand, the side which wishes to attract support will not be satisfied with a few rounds, but will endeavour by continuous and heavy firing to make the danger of his situation evident; on the other, the adjacent columns will only then be justified in approaching if they are convinced that it is not a mere matter of local and transitory advantage. The Cavalry Commander must keep, therefore, a firm hand over his guns, and never allow these to come into action without express sanction, except in extreme necessity. Generally, the batteries should always march with the advance or the rear guard in order to break down

rapidly any minor resistance, and to make the fullest use of such short opportunities as may arise for the utilization of their full power.

The application of these principles is, of course, much simpler when it is possible to keep the several columns close together on a convenient group of roads, all running fairly near to one another. The disadvantages which then arise make less demand on the skill of the Leader, but more on the necessarily cramped form of the disposition which, as we have above pointed out, he is compelled to adopt.

For every operation, in fact, except the direct attack, there is a certain degree of extension, which favours the immediate purpose the most, and this depends on the shape and nature of the ground ; but one has always to resist the temptation to dispersion which arises, particularly when it is necessary to keep in mind the solution of several possible problems. Only very occasionally will it be expedient to divide one's troops to meet every emergency.

The General must use his judgment to decide where the chief weight of his mission lies, the principal characteristics he must impress upon his operations, and how the subsidiary purposes can be best served without applying half-purposes to the primary object. It is these considerations—the reduction of the complicated to the simple—which create the chief difficulties which weigh upon the mind of the Leader. The capacity of coming to a correct decision in every special case is a mark of the intellectually capable Commander, and of itself gives a certain guarantee of its success by rendering possible the concentration of the force upon the decisive point ; but it will not alone suffice to insure success. Boldness and energy of

character is the final determining cause of successful results.

Above all, every Cavalry leader must be inspired by the determination to keep the initiative under all circumstances, and never to relinquish it to his opponent. The initiative alone guarantees successes, often in a degree which one was hardly entitled to expect, for it forces the enemy to accept the law from our hands, disturbs his strategical combination, compels him to fight before his troops are united, and often gives to the numerically weaker the opportunity of establishing a relative local superiority. One must, therefore, endeavour to introduce as much of the initiative and offensive element as circumstances will permit even in the execution of defensive missions.

A Leader must never allow himself to be hindered in an advance, or be driven into an attitude of expectation by the passive opposition of the enemy's Cavalry, as so often happens in peace.

In all such cases, when a direct frontal attack holds out no prospect of success, he must immediately initiate a wide turning movement outside the effective range of the enemy's artillery, and sacrifice without hesitation his own line of retreat. Victory restores at once the original line of advance, and the outflanking movement threatens also the enemy's retreat.

It is never permissible to wait until driven into action by superior commands, but one must always endeavour to reap, on one's own initiative, the utmost possibilities the situation holds out.

In this way we shall save the troops excessive exertions and purposeless riding about, for since the Headquarters can never grasp the situation as rapidly or as thoroughly as the General actually on the spot, it

follows that their orders will generally arrive too late. Hence they often lag behind events, and call for excessive exertions, night and forced marches if the purpose is to be attained. The records of the Campaign of 1870-1871 give innumerable instances of these facts, based on experience. Finally, resolutions should never be made dependent on circumstances which may happen in the future, but must always be based on something positive, which must be followed up with all conceivable energy and circumspection. This most necessary circumspection on the part of the Leader demands a clearness of expression in the issue of orders which must never leave the subordinate officers and troops in doubt, and should always reflect a clear and determined purpose.

It is, however, equally necessary that the superior Leader must himself be clear as to how he means to carry out his purpose, has also considered all other possibilities, and has made his arrangements in such a manner that, if necessary, he can give his operations a different direction. This must be particularly the case where success depends on cunning surprise. As concerns the first point, this will require the more thorough consideration, because it is most particularly difficult to change the strategic direction of a large body of Cavalry when once it has been launched forward on a broad front. In such a case the whole carefully elaborated network of patrols would be left, so to speak, hanging in the air. To divert it sideways into a new direction is generally impracticable; it would, in fact, in most cases be impossible to transmit to all the advanced detachments the news of the change in the dispositions.

A new system of patrols will, therefore, be abso-

lutely necessary to save both energy and time, and the necessity for instituting this new service will be particularly detrimental to our whole operations, because the information from the new direction will generally arrive too late to be of service.

It is, therefore, of the utmost importance that the Cavalry Leader should not only reconnoitre in the direction prescribed by the higher Command for its particular purpose, but should also scout independently in every direction, and inform himself of all the circumstances in the whole district over which he is operating; if necessary, organize for himself an intelligence system.*

In short, he must exercise such prevision that he can never be overtaken by circumstances; and in every case in which action is called for in a new, and, perhaps, unexpected direction, he should be prepared to meet the emergency. In this way he will save himself much time and energy, but it will facilitate his very difficult task essentially if he is always kept informed in sufficient time of the views and possible intention of the Chief Command; for unless this condition is complied with, it will be impossible to insure that the whole energy of the Arm will be directed to the carrying out of its reconnoitring functions in conformity with the views entertained at Headquarters. It must be characterized as one of the most suicidal errors when the superior Command conceals its purposes from its executive organs. Diffused activity, waste of energy, misunderstandings, and confusion would be the inevitable consequences, and

* I here call attention to the instructions of Frederick the Great on this subject, as well as to the circumspection with which General J. E. B. Stuart prepared for his own undertakings.

military history—not the least that of 1870-1871—gives a long rôle of illustrative examples.

As regards all those operations which depend on surprise, the circumspection of the Leader becomes the decisive factor. Everything must be thought out beforehand, and carefully considered. The very soul and being of the Leader must be grasped by the men under his Command, and the utmost energy in the execution of his design be demanded from every individual. As a general rule, smaller bodies, which can conceal themselves behind features of the ground, and hardly require a service of security, can act quite differently to larger ones, which cannot conceal their presence and always require a certain degree of precaution for reconnaissance and security. Above all, mobility is the essence of the whole situation, and darkness will serve as a most important contributor to success.

On main roads, where it is impossible to lose one's way, darkness can be used for forced marches to advantage if beforehand we are clear about the conditions on the side of the enemy, and hence can act with a certain degree of confidence.

One factor must never be left out of consideration—viz., that under modern conditions the difficulties of action by surprise have been enormously increased, and the enemy is under certain circumstances enabled to paralyze the tactical results of surprise. This factor arises from the existence of railways and telegraphs, and it will act most detrimentally against us when moving in the enemy's country, where both arrangements favour our opponents. Telegraphs carry the news of the appearance of Cavalry far and wide beyond the points where they have been seen by the

enemy's troops, and the railways forward supports to the threatened districts.

It is, therefore, of particular importance to destroy by means of advanced patrols both telegraphs and railways all over the district on which one hopes to act by surprise, and to repeat such active destruction again and again. In such enterprises there is a wide field for slimness and craftiness—qualities which might very well be combined in greater undertakings.

Sudden changes in the line of advance behind the screen of advanced troops, unexpected concentration of separate columns at decisive points, separation and surprise reunions of one's forces, dissemination of false news, feints on points of subsidiary importance to distract the attention of the enemy—all these things can lead to the deception of the enemy, and in one's own country they will be materially supported by a friendly population; but timely and accurate information of all the circumstances of the enemy remains always a most necessary condition.

If the importance of these measures is particularly striking in these cases where we are dealing with surprises, ambushes, and so forth, they form also in every other type of Cavalry action one of the principal foundations of success, for they alone insure timely resolutions and the consequent initiation of the movements necessary to bring about concentration and separation.

The Cavalry Commander must, therefore, always choose his position when on the march, with the troops in immediate contact with the enemy; or if his troops are quartered in the neighbouring villages, then immediately behind the advanced line of cantonments, so that whenever possible he can see with his own

eyes and base his decisions on first-hand evidence, where he can receive all reports as soon as possible, and make his dispositions in good time. Otherwise it would only too frequently happen that his orders and dispositions will drag behind events, and disorder and defeat will be the consequence.

This personal supervision of matters in his front is also necessary to enable him to come to a correct decision as to his line of action, whereas a Commander of all Arms can better decide by the map, because his troops are less dependent on the ground than Independent Cavalry, move more slowly, and hence are more accessible to subsequent orders. But even the utmost energy in the Leader will not alone suffice to lead things into their proper lines without the most successful and rapid reconnaissance. Hence the practical organization of the system of reconnaissance remains the essential task of all strategical Cavalry leadership; but it requires to be supplemented by an equally practical system of security.

On these two subjects so much has already been written that it is impossible to find anything new to say about them. Only one point has not been brought out sufficiently—namely, that both security and reconnaissance, in so far as both depend on patrols, will only then work successfully when they are based on a thoroughly systematized method of procedure. The subject is of such importance that I have considered it necessary to devote a short chapter to it (Book I., chap. viii.).

If reconnaissance—apart from the fact that the roads must be cleared for it in the first instance by the defeat of the enemy's Cavalry—lies exclusively in the hands of the patrols, nevertheless security depends on the

arrangement and activity of the other branches, such as advance guards, rear guards, flanking detachments, and outposts, and the conduct of these depends, again, on thorough systematization.

When on the move, safety lies in the distance that separates the main body from the advanced detachments, and it is scarcely necessary to point out that only systematic arrangements can guarantee the necessary time for the exploration of the ground and the enemy which is requisite for safety.

Threatened flanks require special detachments, moving on the same level and at sufficient distance, and their co-operation will be insured by a careful regulation of the mutual rate of march.

A uniform rate of advance in the whole mechanism is an essential condition of complete security. Hence every means must be exhausted down to the smallest detail. It will not be necessary to assign minor flanking detachments for the duration of a whole march. During such a period it is practically impossible to retain their relation to the main body without keeping them within sight, which in most cases is quite impracticable, for circumstances may suddenly check the main body, or necessitate a change of direction. To advise the flanking detachments of such occurrences will generally be impossible, or at any rate very difficult, if one has permanently detached them, and therefore has no certainty of finding them at any particular point. Hence it is advisable to work them always in sections—that is to say, when they have reached certain points to withdraw them to the main body, and send out reliefs for the next section.

But in order that the security should never for one instant be relaxed, these fresh reliefs should always be

sent out at some little distance before the point at which the former detachment is to be drawn in.

Almost more important than security at night is security during prolonged periods of rest. In that case the arrangements must be made not only in accordance with tactical requirements, but the fact must be taken into account that horses, in order to remain permanently useful, require quite a different nature of rest than is needed by men.

It is most desirable that as many horses as possible should every day be brought under shelter and unsaddled, and all bivouacking should be avoided as far as practicable.

The readiness for action from a purely tactical point of view certainly suffers, but as rest at night is an absolute necessity for the horses, one has to make the best of the matter and minimize this disadvantage as much as possible by suitable arrangements.

Against this view it is often urged that Cavalry used to bivouac much more frequently in former wars, and nevertheless remained fit for service, hence they ought to be able to do the same to-day. I consider this an entirely wrong deduction. In the first place, the demands upon the troops in former days were generally much less than at present. The periods of crisis in which great exertions had to be made by them were on the whole less frequent, and the subsequent intervals for rest and recuperation were usually longer.

Considering the average marches of the Napoleonic Cavalry as a whole, they cannot be considered particularly great, and still less was this the case under Frederick the Great, although under both Generals we find instances of great individual exertion.

Moreover, the horses in those days were much less

well bred, and the commoner cold-blooded strain can stand bivouacs, cold and wet, much better than our present high-bred material, although the latter stand heat and exertion very much better. The leadership must adapt itself to these conditions. Where circumstances allow the bulk of the horses to take shelter behind the Infantry outposts, the most must be made of the opportunity, and only the more distant patrolling service be left to the Cavalry. Outpost service makes far less demands on the Infantry soldier than on the Cavalry horse, for the former is allowed to sleep when on piquet, the Cavalry horse cannot.

The Cavalry soldier certainly gains an advantage here over the much-harassed Infantry man, for naturally the man derives advantage from the care bestowed on the horse; but I hold this point is of far too trifling a nature to take into consideration when the matter affects such a necessary and important factor of strength of the whole Army. Further, this advantage is more apparent than real, and is only intended to give us the means, while sparing the material in one direction, to make greater demands on it in another. When in critical moments bold and wide-sweeping movements on the enemy's flanks and rear become necessary, where our object is to keep the enemy's movements under constant observation while screening our own; where, finally, on the close of a battle we must pursue the enemy relentlessly, or sacrifice ourselves to cover and protect the weary and retreating Infantry, then the Cavalry which has been properly nursed will be capable of exertions far beyond what could be expected of troops less thoughtfully managed. These exertions can then be unconditionally demanded, and will repay a hundredfold,

both tactically and strategically, the care bestowed in easier days.

Only rarely, however, will cases arise in which Cavalry can avail themselves of the shelter of the Infantry, for the essence of all Cavalry activity lies in the future in its independent undertakings. If we were to apply to them the same principles as to the Infantry—that is to say, make a principle of bivouacking the outposts and exposing them daily to the effects of the weather—this would result in a steady drain upon the horses, which would lead to serious deterioration in their endurance. Hence the question of bringing them under cover does not apply merely to the mass of the forces, but must be extended to the whole system of outposts, and wherever practicable the greatest possible number of horses must be placed under shelter in full and complete security. This security must be sought for by the increased depth assigned to the outpost system. Even after a victorious advance one must not hesitate, under certain circumstances, to withdraw the troops in order to obtain the necessary distances between the enemy and the advance guard, as also between the advance guard and the main body. Slightly increased distance to be covered next day is nothing as compared to the advantage of greater security. It will be particularly desirable to make the most of all positions the ground may afford, which, being traversable at only certain points, hinders the approach of the enemy—such as rivers, which can only be crossed at the bridges, woods in which movement is confined to the roads, marshes, and so forth. Behind these one can generally go into cantonments without anxiety, and they offer the further advantage that they can generally be held by small forces of dismounted

men. Hence the horses can generally be sent back and brought under shelter at a distance, and in case of alarm can be saddled up and be made ready by men detailed for that purpose.

Where such positions are not available, one must either go back further, or, if not altogether too near to the enemy, make the most advanced cantonments serve the purpose of the line of security.

Every evening these localities must be hastily prepared for defence, with the determination, in case of attack, of defending them carbine in hand, and without bringing out the horses until the support can come up from the rearward cantonments.

The details of such defence I have already discussed elsewhere.

This method of defence, however, must be supplemented by a suitable system of observation sent out towards the enemy. Even detachments far advanced towards the enemy may, under favourable circumstances, find temporary cover in villages, and every such period of rest is of advantage for the horse.

The Cavalry, however, which, in full confidence of its firearms and the alertness of its patrols, can venture to go into cantonments, and thus save its horses from bivouacking, will very soon assert its superiority over an enemy which seeks for safety by remaining constantly under arms, and thus dissipates its inherent energy.

This tendency towards cantonments must not be allowed to become stereotyped. Occasions will constantly arise when the Cavalry must remain in immediate touch with the enemy; then it will be compelled not only to bivouac, but will have to stand to its horses, ready to mount at a moment's notice.

Such occasions will only arise in critical situations necessarily of short duration, and the conditions both of the weather and the ground must be taken into careful consideration in making the arrangements for the outposts.

Thus it is evident that it is not possible to lay down fixed rules of conduct either for operations or for the outposts, but all must be left to the capacity of the Leader and the adaptability of his men. On this capacity depends in the last resort the greater or less strategic value of the Arm. Its foundation can only be laid in peace, and will depend on thorough and successful training, together with suitable preparation of the whole organization for War. To both points I will recur in the second part of this work. Here I would only insist that naturally the collective strategic employment of the Arm must take a thoroughly different form in proportion as the troops are rendered more or less independent by their equipment, the leaders of all ranks are qualified to act on their own responsibility, and mobility is not hampered by difficulties in the provisioning of man and horse, and in the supply of ammunition. In the one case the Leader can act with courage and daring in the true Cavalry spirit; in the other he will feel himself hampered at every step, will not be able to act with the necessary degree of self-confidence, and will have to renounce the most promising undertakings because the inefficiency of his troops leaves him no alternative. However great his genius, no Leader can compensate for want of efficiency in his command; but it is the duty of such leader to maintain and increase the endurance inherent in his material to the utmost limits of its capacity.

In this connection a well-thought-out system of

saving and caring for one's horses occupies the first position, for this is the bed-rock foundation of all subsequent developments. We have seen of what immense importance in this respect the sheltering and arrangements for the outposts may be. But there are other factors to be considered—above all, a rational arrangement of the marches. In the first instance, it is a mistake to believe that Cavalry in the long-run can out-stay and out-march the Infantry—that, in other words, the Cavalry horse can endure greater hardships than well-trained Infantry. For a few days that may well be so, but for continuous exertion it is by no means proved.

The German Cavalry horse is much more dependent on a sufficiency of food than the man; the nature of his load, together with the rapidity of movement, and hence the greater intensity of the exertions demanded of him, attack the animal in a far greater degree than the more uniform march performance of the men, who, moreover, are susceptible to moral influences, capable of greatly increasing their powers; finally, sore backs and lameness in long-continued exertions decimate the ranks of the horses to a much greater degree than a well-trained and equipped Infantry suffers from similar causes.

In normal conditions demands should not be made upon the Cavalry which would be justified only in moments of a crisis. We must endeavour to reduce the daily performance to the lowest limit that our purpose allows. Only in exceptional instances should one move off at such an early hour as to interfere materially with the night rest of the horses. Unfortunately, there are still officers who will not be convinced that it is the horse which most requires rest,

and who are never satisfied unless they keep the Cavalry night after night on their legs, although in darkness they are useless either for reconnaissance or for fighting.

Further, in War games and Staff rides it is a custom to make demands which in practice are absolutely impossible, mostly by superior officers who have never ridden 100 kilometres (66 miles) in a single day.

An average of twenty to twenty-five miles a day is in practice a very considerable performance. To demand much more of them, day in and day out, is impracticable. On the march itself a suitable change of pace is very necessary.

To trot hour after hour is the most fruitful source of ruin to our horseflesh. Where it becomes necessary it is usually due to the want of care on the part of the Leader. Much may be done to spare the horses if we never march with considerable numbers on a single road without absolute necessity; and when this is not to be avoided, then we must seek to maintain an even pace throughout the column by the intercalation of suitable distances between the several bodies; otherwise there is a continuous hurrying up or checking of the rearward detachments, which strains the horses to the very utmost.

One must always arrange for the halts necessary for the horses, water them whenever opportunity offers, and never continue a movement to the complete exhaustion of the animals. Well-timed periods of rest increase the collective power of endurance of the horses most materially, and as the training improves, the demands made upon them can gradually be raised.

To bring this greater improvement into harmony with the military requirements of the situation, next in importance to an intelligent execution of a rational marching system comes a wise economy of forces with regard to the performance of detached duties and patrolling. It is particularly with the Divisional Cavalry that the lavish assignment of orderlies and messengers to the leaders of the other Arms and to the Infantry outposts has to be kept in check, and it must be insisted upon that the men thus allotted should be returned punctually to their commands, and not be employed in duties for which they are not intended.

Thus one finds Generals who use their messengers as patrols even when special patrols have been entrusted with this duty; others who keep the detachments assigned to the outposts long after the outposts themselves have been relieved. In all these things there is a tremendous waste of energy, which must be all the more injurious the smaller the proportion of Cavalry which can be detailed to the Infantry Divisions.

It is a special duty of every Cavalry Commander to resist this tendency to the utmost of his power.

Apart from the regulation of the marching column and the economy of forces above referred to, a rational treatment of the rearward communications, particularly with the Independent Cavalry, will go far to maintain the troops in efficiency, and is also from the strategic point of view an important part of the Leaders' duty. The daily despatch of numerous requisitioning detachments to great distances weakens and diminishes the troops to an inadmissible degree, unless it is managed with a wise foresight and on a

rational system; often on great marches it will be altogether impossible. Then the horses must manage with what they find at their halting-places for the night. In the case of great concentration this will be altogether insufficient. Short rations reduce the horses very rapidly and only too thoroughly. It is, therefore, necessary in all independent operations of great Cavalry 'Masses' to take with one an organized and mobile supply train, and, where circumstances require, to arrange for its defence.

The timely arrival of the supply waggons, the rational utilization of the resources of the district, the continuous replenishment of the moving supply reserves, are matters which cannot be left entirely to the Army Service Corps, but the Cavalry General must himself overlook the whole matter, and keep the general control in his own hands. For these arrangements must be regulated from the strategic point of view, since the power of operating at all depends essentially upon them. Of course, the Supreme Command must lend assistance also.

In general, it will be advisable to carry with one a five to six days' ration of corn if one is to be prepared for all emergencies. That, at least, was the practical teaching of the War of 1870-1871. But one must add, the further the Cavalry is separated from the masses of the Army, and the more it renounces its communications with the latter, the greater must be the bulk of supply it takes with it; and the closer these supplies have to be kept to the troops, the more thorough must be the arrangements for their protection. The latter will be of particular importance when operating on a narrow front which favours an enemy's outflanking endeavours, whereas wider fronts of themselves

give a certain degree of security to the rearward communications.

If we are entirely cut off from our home resources, then we must select some point to be occupied on the flank or in the rear of the enemy's Army, and there arrange a supply centre of our own, and make it the point of departure for separate operations.

All means are, then, proper to accumulate in such places a sufficient forage reserve, for the subsistence of the horses is the most important task which falls upon the Commander. A delay in this direction can wreck the most brilliant undertakings—jeopardize the result even of the best executed ones. Theory does not attach sufficient importance to the point here involved.

Thus we see that the tasks of the independent Cavalry Leader are both many-sided and responsible. He can only then prove equal to them when all subordinates on whom he has to count support him with the utmost goodwill and reliability.

With this necessity a new demand is made upon him—namely, to raise the spirit of the men he commands in such a manner that they will be equal to the highest requirements. Only a bold, self-confident, and active man, who everywhere sets the best example, will be able in this manner to inspire and stimulate his command. The sum of the stimulated individual performances brings with it also increased opportunities of success.

Hence the last and greatest demand for the successful conduct of a Cavalry Mass remains always the man who will inspire and stimulate the troops under him, and thus lead them to victory.

CHAPTER VIII

PATROLS—TRANSMISSION OF REPORTS—CYCLISTS

I HAVE already, in a former section, insisted on the fundamental proposition that reconnaissance and security are two diametrically opposite conceptions, and cannot on a large scale be confided to one and the same body of troops. This conflict of purpose becomes most evident when we come to the service of patrols in the field.

Reconnoitring patrols regulate their movements on those of the enemy. They must keep touch with and follow him, quite irrespective of the movement of their own side, often being compelled to creep after him—*i.e.*, to utilize intersected ground in order to avoid the necessity of fighting.

Security patrols, on the other hand, flanking detachments, piquets, vedettes, and the like, have to choose their position with reference to the force it is their purpose to cover, and with which they must remain in communication. It is their duty to attack and beat off the enemy's patrols, as far as their strength will allow them, to prevent these latter gaining an insight into the conditions of the marching or resting troops whose safety they are intended to secure.

If they were to attempt to follow up their enemy to

find out his position—*i.e.*, to reconnoitre—they would lose their connection with their own troops, and endanger the security of the latter by relinquishing the special object they are set apart to provide for.

Hence it is absolutely necessary that the two systems should be kept separate one from the other, and that each patrol should know clearly and distinctly for which of the two purposes it is specifically intended. Only then can the troops in rear rely on being kept thoroughly informed, and at the same time secure from the possible attempts of the enemy.

The more clear and precise the mission, the more can the patrols be relied on to execute it; but this, of course, does not exclude the necessity for them to keep their eyes open for other things, and to report all they may notice.

Such a systematic arrangement brings other advantages in its train. It effects a marked economy of one's available forces, for being certain that every mission will be settled by a special party detailed for that purpose, it ceases to be necessary to keep on despatching fresh patrols again and again in the same direction, a practice most detrimental to the troops, which is constantly followed in peace-time; and it can never happen that a body is surprised by the enemy because its scouts are absent reconnoitring, or that it fails to receive information because its patrols are busy with security. If, therefore, all patrols thus naturally fall into one of these two groups—reconnoitring and security patrols—there is still another line of distinction to be observed between these patrols themselves, arising from the nature of the tasks which the circumstances impose upon them.

It is impossible to lay down any distinct rules in

this matter—for War will always present new and changing problems—but broadly two points of view must be kept in sight, which require fundamentally different treatment, and are conditioned by our distance from the enemy.

If the opposing forces are still engaged in preliminary approaches one to the other, and separated by wide stretches of country, the procedure will be altogether distinct from that to be adopted when the outposts mutually confront one another.

Between the two extremes there are innumerable intermediate degrees, to which one's conduct must be adapted without losing sight of the guiding points involved.

Let us take first the period of approach, and consider the reconnoitring problem from this aspect, taking into consideration the broad requirements of modern War.

It will be apparent at once that there is here a double purpose to be fulfilled—viz., to ascertain the whereabouts and direction of movement of the elements of the enemy's main fighting force, the primary object of all reconnaissance; and, secondly, to find the enemy's preceding Cavalry screen, whose purpose it is, on the one hand, to prevent our object, and, on the other hand, to conceal their own main body. This Cavalry we shall have to defeat, but we cannot afford to await this event, but must initiate our own reconnaissance before the decision, and endeavour to carry this through, even if the latter prove unfavourable to us.

Hence it follows that our patrols must be systematically divided from the first into strategical and tactical patrols, according as to whether they are intended to find the enemy's main army or to beat his Cavalry.

The former must not allow themselves to be held up by the enemy's Cavalry, but must endeavour to ride through the opposing screen—straight for the heads of the enemy's marching columns. They must, therefore, avoid all fighting, and act by cunning and stealth, and hence their conduct should be entrusted always to officers. They will be directed against the probable lines of the enemy's approach, as determined by the general strategic situation, and will further be given all possible information as to the known whereabouts of the enemy, together with the intentions of their own Superior Command, in order that they may be in a position to distinguish between important and unimportant details, and adapt their action accordingly.

That the position of heads of columns in time and place, their depths, the flanks of the enemy's positions, extent of his outposts, districts in which troops are quartered, the appearance of new uniforms, indicating the presence of regiments believed to be elsewhere, etc., should all be carefully determined, forms part of their normal instructions; but, in spite of that, it is very desirable to direct their attention very particularly to all such points as are at the moment of preponderating consequence. They must also be kept well informed as to the mission of their neighbouring patrols, so that under all circumstances the systematic subdivision of their several tasks can be maintained intact.

For these patrols one must choose the best mounted officers and men and horses, since long distances must be covered under difficult circumstances, and it would be well to allot to each a competent non-commissioned officer, who can carry through the task if his Com-

mander is killed or taken prisoner. If possible, they should also be supplied with a concentrated horse-ration, so as to be as far as possible independent of the resources of the country. (See Part II., Section 1).

As to the strength of these patrols, it will be necessary to keep within very narrow limits, because if they are large it is difficult for them to escape observation; on the other hand, a certain degree of strength is necessary, because one cannot, of course, count on being able to send back one's information by single messengers. Since it is a prime condition of the problem that a district thoroughly commanded by the enemy must be ridden through, the safe return of a single messenger can never be guaranteed; hence the Commander will either be obliged to send his reports in duplicate or triplicate, or in the last resort fight his way through with them himself. Hence it will be advisable to compose each party of two or three patrols, each of three men, assigning a smart lance-corporal to each.

One officer, one non-commissioned officer, two lance-corporals, and five men must, therefore, be considered as a fairly normal type.

The Commander can then despatch two reports, and the third he must bring in himself, and must well consider how long it will be safe to continue his observation, and what it is of real importance for his superiors to know.

But he must never allow himself to be hurried into the despatch of unimportant information. He must always keep before his mind the essential strategical elements of the whole situation. It seems to me altogether wrong to send off such patrols with general instructions to keep in touch with the enemy, a

common manœuvre practice. Since these latter generally last only a few days, there is not much difficulty in maintaining such a system, particularly when information is sent by single messengers. But in War everything is very different. One would very soon have got through all one's officers and still not be well informed. The patrols must, therefore, be told to return within a certain time limit, and their reliefs, who are to be fully instructed as far as the information available goes, must be despatched before this time limit is expired. Even then we shall soon exhaust the available supply of officers who will have been driven to the limit of their endurance in purely strategic missions, and in the end we shall have to fall back upon Non-commissioned Officers for tactical observation.

This tactical reconnaissance will, in the first place, devote its attention to the enemy's Cavalry. The patrols assigned to these duties will attack the enemy wherever they meet him, to find out what is going on, and as soon as possible establish a moral superiority over them.

But even they cannot remain permanently in touch with the enemy, because they, too, must send in their information by messenger, their strength thus rapidly diminishing, and they, in turn, will require relief.

If permanent observation of a yet distant enemy is necessary, we must turn to other means. It will, then, be as well to send out whole reconnoitring squadrons or troops (F.D.O.,* 128) towards the enemy, and through them maintain a permanent tactical observation.

These serve as a patrol reserve and collecting station for information, remaining day and night in

* Feld Dienet Ordnung.

touch with the enemy, and, of course, will also require periodical reliefs.

It goes without saying that, in addition to these squadrons, single patrols may be despatched in important directions from the main body of the Cavalry. whose duty it will be to report to the latter direct.

These, again, must send off their reports by several men, whilst those despatched from the patrols sent out by the reconnoitring squadrons will often, owing to the shorter distance and the nearness of the support, be able to avail themselves of the despatch riders. In general, it cannot be insisted upon too much that the despatch rider, so very popular in peace, can only be very occasionally employed in War in the interval before the enemy's Cavalry is completely beaten out of the field. In peace a man is always riding in his own country; if he himself has not a map, he has at least been instructed from a map, and every civilian will help him out. Even if he stumbles up against an enemy's patrol they will generally let him pass unnoticed; but it is quite different in war. Here even a patrol leader has rarely got a map. The despatch rider rides across thoroughly unknown districts, coming in contact with a foreign, perhaps hostile, population; he cannot make himself understood, if, indeed, he is not obliged to avoid them. The enemy's patrols are also everywhere, and if anything happens to his horse the message does not arrive. Further, the enormously increased distances to be traversed in modern War have to be taken into account, and these alone render the despatch of single horsemen a very doubtful undertaking. We must, therefore, recognise that the conveyance of reports by individual despatch riders

is only possible under very limited conditions, and within the districts fully controlled by one's own troops, and that even in one's own country reconnoitring patrols sent out to a great distance can only be very occasionally employed.

Here we come upon an increased difficulty in the whole system of intelligence, and yet all reconnaissance is useless unless the return of information works without a hitch. We must, therefore, endeavour to regulate it accordingly.

Above all, the connection between the reconnoitring squadrons and the main body by relays must be very carefully assured, and their strength must be proportionate to the number of the enemy's patrols moving in the district. In these cases a co-operation between Cavalry and cyclists will be of service, whilst within the radius which we completely command the whole rearward intelligence service, so far as it can move upon roads, must be left as much as possible to cyclists.

Fundamentally, no Cavalry soldier should be allowed to ride to the rear without pressing circumstances. This is an absolute necessity if we are to spare our valuable and almost irreplaceable horses. Towards these safe lines of communication all reports must be directed, in order to be forwarded with the utmost rapidity by fresh horses or cyclists.

If these main roads do not run as far as the reconnoitring squadrons, in order to allow of the patrols making use of them without long detours, then further collecting stations, protected by other troops, must be interpolated. (F.D.O. 273.)

Occasionally the Cavalry Telegraph equipment may be of assistance, but we must not expect too much

from it in periods of rapid movement, because since its application depends upon a number of favourable circumstances, its value in such changing conditions is more or less illusory.

Results obtained in manœuvres, in my opinion, convey no correct experience in this matter.

Another point, however, must be specially brought out—namely, the necessity, not only of sending back information through the proper channels, but also of forwarding all important news direct to the principal Commander of the Cavalry or to the Army Headquarters. It is of the utmost importance that the Headquarters in each theatre of the War should receive information about the enemy simultaneously with their subordinates, so that they always remain in the position to dispose of their troops according to their own ideas, and do not find themselves bound by instructions previously issued by their subordinates. It is precisely this evil which made itself felt in 1870-1871. Very often the most important information never reached Headquarters at all, and hence no action could be taken upon it.

The fault lay chiefly in the fact that the subordinates not being informed as to the connection of events, did not perceive the importance of the information, and therefore did not forward it on, and partly because the telegraph wires were overburdened by the private messages of distinguished persons who had nothing whatever to do with the conduct of operations.

The control of the wires for purely military purposes must, therefore, be maintained with rigid severity, and information to Headquarters or Army Commands must have precedence over all other business.

If collecting stations for information are not avail-

able, the question arises, Which groups should be authorized to report direct to Headquarters? In my opinion this cannot be determined by the strength of the troops concerned, but must always depend on the strategic situation. Generally it may be laid down that the lie of the roads must decide.

Those detachments entrusted with the reconnaissance of a single line of road will report direct any important information gained within their own sphere if no stronger body should be moving along the same line, and this reporting body may, therefore, according to circumstances, be a patrol, a regiment, or a brigade. It is desirable from this point of view that all Cavalry officers down to patrol leaders should be kept so thoroughly informed as to the general situation that they may judge of the importance of the information obtained, and hence know where to send the information they have secured.

As the opposing Cavalries first, then the larger bodies of the Army, approach one another the situation changes. The reconnoitring squadrons clear the front and turn their attention to the enemy's flanks. The advanced squadrons are withdrawn, and the larger Cavalry bodies drawn off towards the wings of the Army, and seek shelter behind the Infantry columns, if they have been defeated in the Cavalry duel, or turn against flank and rear of the enemy's Army if they have been victorious. In front of the Armies reconnaissance now falls to the Divisional Cavalry. Here the strategical and tactical duties coincide. What the conduct of the Independent Cavalry will be must depend on whether it is still held in check by the enemy or not. If the latter have been finally beaten out of the field so that one has a free hand, then the

strategic patrols will direct their attention to the enemy's rearward communications, and will seek to determine the approach of his reserves, but tactical reconnaissance will be directed against his flanks.

The principles governing our conduct remain the same, only the reconnoitring and advanced squadrons now act primarily as supports to the strategic patrols. If, however, a decision between the two Cavalries has not been finally arrived at, one will now endeavour to bring it about, and for this purpose unite all available forces, leaving meanwhile the reconnaissance to strong patrols, who in this period of the combat must never avoid those of the enemy, for now our object is to get information quickly, and the time for circumvention and evasion is at an end.

When the first battle has been decided, there follows either pursuit or retreat—operations in which the tactical reconnaissance cannot for one moment be omitted. Then by degrees, as the defeated side succeeds in disembarrassing itself of its pursuers, things revert to normal conditions again. The two Armies are separated by a certain area in depth, and a new series of operations commences, in which, as before, reconnaissance is required.

Matters are somewhat different as regards security. Here also in general a distinction must be drawn between safety obtained by bodies detached in advance and that derived from piquets, etc., immediately at hand. But too much importance cannot be laid upon the principle that, as above pointed out, reconnaissance alone cannot suffice to insure safety; the reconnoitring detachments must rather always be followed by a line of security troops, so that as a general type three lines of patrols result—viz., strate-

gical patrols far in advance, tactical patrols, and security patrols, which latter, when the main body is halted, become the standing outposts.

Coming next to the measures of security necessary for Independent Cavalry when in movement, the tactical reconnoitring patrols, by sending in early information of the enemy, will make a far-spread line of security patrols unnecessary. In general, the ordinary point of the advance guard and flankers will suffice. For the latter the same holds good which has been said in the previous section on the subject of flanking detachments altogether—viz., that they must be worked by sections, and arranged in a proper system of reliefs.

If the necessity arises to screen, as well as to secure —*i.e.*, to hide absolutely our movements from the enemy—then all roads leading towards him and the section of the ground comprised between them must be occupied in such manner that the enemy cannot find intervals at which to break through, and this will be best attained by a system of local patrols, tied to definite beats. These patrols must fight the enemy wherever he appears, and must, therefore, be given sufficient strength and be followed by small supports duly allotted to each section of the whole front.

When the main body is stationary, the conditions are different, because the troops require a certain time to turn out; therefore more precautions are necessary, and the end can be best attained by placing the patrols further to the front. Hence we arrive at a double system of security—the first line formed by outpost squadrons, with officers, non-commissioned officers, and small patrols, to which a certain district to be ridden over will be assigned, and which must main-

tain a systematic connection by patrols between its separate parts, to insure absolutely the control of the ground around them; and the second, formed of far advanced posts of observation at suitable points—road crossings, defiles, etc.—from whence they can detect at the earliest moment any approach of the enemy. These are indispensable at night, when reconnaissance is always more or less liable to break down, for darkness interferes with sight, and the horses require rest. Their importance also increases naturally with the vicinity of the enemy, and the consequent greater risk of surprise. In the case of the larger bodies, whole squadrons (see F.D.O., No. *272*) must be detached for this purpose, and communication with them assured by strong relay lines. These strong advanced detachments can, under favourable circumstances, get shelter in villages, so that the horses at least obtain better rest and care for a few hours, and the same applies naturally to the reconnoitring squadrons. In all such instances the guiding idea must be to evacuate the village the moment the enemy appears, and evade collision with him. How this is to be managed has been already explained (Book I., Chap. VI.). Accurate knowledge of where all the roads lead to, the barricading of those running towards the enemy's position, and extreme alertness on the part of the patrols, are in such cases all-important.

Above all, the Commander must be confident in the steadiness and coolness of his men.

As to the immediate security of the Army itself, this depends in the first place on the Divisional Cavalry, but during the advance the Independent Cavalry on the front and flanks guarantees this security so thoroughly that the former can confine themselves to

the most elementary precautions, which must include primarily the maintenance of connection with the latter for this purpose. Then they will not only have to provide for security in the most thorough manner, but will also have to reconnoitre, and for this purpose follow the same rules which we have laid down for the Independent Cavalry. If the enemy's horse prove overpowering, then they will use their power of defence to the utmost, and seek to increase it by cyclists belonging to the Infantry, Maxims, and Artillery, in order to beat off the enemy with loss, and to clear the path for the reconnoitring patrols.

Speaking generally, the system I propose is in harmony with the spirit, if not with the letter, of our Field Service Regulations, in which the systematic distinction between reconnoitring and security, as also between strategic and tactical patrols, is, in my opinion, not sufficiently defined. The essential point which necessitates this distinction has not been grasped with sufficient precision. If we are to follow literally the wording of the Field Service Regulations, and not the spirit which pervades it, which disregards all stereotyped formations and keeps always the practical in view, then it would be impossible to carry out screening operations on the scale which the conditions of modern War will render indispensable. Sufficient stress has not been laid on the necessary systematizing of the whole procedure. Finally, too, much weight has been laid upon the employment of the despatch rider (*Meldereiter*), although the experience of 1870-1871 has sufficiently shown that this system was unreliable. I recall as an instance the pursuit of Vinoy's Corps (after Sedan), in which case the most important report was entrusted to a despatch rider,

who only reached his destination twenty-four hours after he was despatched, and by that time it was too late to take any action on the information he conveyed.

The Field Service Regulations should also contain detailed instructions as to the employment of cyclists with the Cavalry, for the rapid development of this mode of locomotion has rendered this absolutely indispensable. But the point must be brought out that the use of a cyclist is always only conditional, as it depends on the weather, the roads, and the country. On heavy, steep, and stony roads, on which the tyres are only too apt to be punctured, the cyclists are obliged to dismount; against a head wind they can only make progress with difficulty. Nevertheless, there can be no doubt that for the transmission of reports from the advanced lines, as well as for communication between separated bodies of troops within the district controlled by our Cavalry, they are of inestimable service. Granted that in particularly unfavourable weather and bad roads they must be supplemented by Cavalry, they, nevertheless, on the whole, make it possible to expedite materially the delivery of despatches. This is of all the greater importance because in case of War the German Armies will be relatively weak in Cavalry, and under certain circumstances they will have to fight against a great numerical superiority.

Even though the principal use of the cyclists lies in the transmission of information in which they can help the Divisional Cavalry most materially, nevertheless one must not base too sanguine hopes on their activity.

The reason is that because of their wheels they are tied to the roads, and in consequence they can neither reconnoitre nor provide for security independently.

If for these purposes Cavalry patrols are attached to them, the chief advantage of their greater mobility is sacrificed, but without such supports in difficult country they are tolerably helpless against surprise attacks. If one further takes into account that a hill takes off from their speed to such a degree that a horseman can easily catch them up, one must admit that they afford no sufficient guarantee for the fulfilment of independent missions outside of the country which our own Cavalry commands. In such districts they can only be employed on relays, as already pointed out. Here the duty of providing safety can best be fulfilled by the Cavalry, because it is not a question of rapid advance, but only of the protection of stationary posts and certain defined road stretches. But for the defence of these posts, and for the transmission of intelligence, the cyclists will do even better service than the horsemen, because they can cover the ground faster, and when fighting are not hampered by their horses. Their employment here is all the more desirable because the relay service makes enormous demands upon the Cavalry. That was proved up to the hilt in the War of 1870-1871 ; the complaints under this head repeat themselves over and over again, as the records of the Campaign abundantly testify.

Besides, on these relay duties the cyclists can be tactically employed in the district which our Cavalry by its patrols commands, for the rapid occupation of far-advanced posts which neither Cavalry nor Infantry can reach with sufficient celerity and in adequate force: for the defence of defiles lying to our rear, which must be kept open to secure the retreat of the Cavalry; for the support of Independent Cavalry on outpost duty, particularly at night; and for other similar purposes.

To satisfy all these conditions, these cyclist detachments require a sufficient tactical training, but in times of peace one sees in this respect feats performed whose impracticability in War are glaringly apparent. For instance, men keep their cycles with them right up in the firing line, and when they want to retreat or break off the fight they try to mount under fire. As they are generally tied to the roads, they then file off to the flanks. I have, indeed, often seen Cyclist detachments lay down their cycles in the front of the position, and then advance to mount them again in the teeth of the enemy's fire. All these kind of things are absurd. The cycles must be treated like the led horses of the Cavalry—that is to say, the men must dismount under cover, then move up to the firing line, and then move back to cover in order to mount again. The position must, moreover, be so chosen as to enable them to move off without exposing themselves. All these points, which in practice are rendered difficult, diminish very materially the usefulness of cyclists, and take away from them, above all, their power of offence; and in all missions entrusted to them these limitations must be carefully kept in mind.

II

ORGANIZATION AND TRAINING

CHAPTER I

NUMBERS

Organization and Training

When we take into consideration the conditions of modern Warfare, as I have endeavoured in the foregoing pages to develop them—the numerical strength of modern Armies; the numerous formations of Artillery and Infantry set on foot on the outbreak of hostilities; the area of future theatres of operations—when, further, we consider how many important tasks await the Cavalry from the moment when the first shot is fired, and how the most important of these, as I have endeavoured to establish, can only be dealt with satisfactorily by the employment of Cavalry 'Masses,' the conviction must force itself home to every mind that our German Cavalry is numerically inadequate to meet even the principal demands the future must make upon it.

If, further, we reflect that, owing to causes which it would be out of place to deal with in these pages at length, it is precisely upon our Cavalry that the rôle of fighting against crushing numerical superiority must devolve, this conviction must give rise to the gravest anxiety, more especially when it is remembered that the difficulty of securing a supply of reinforcements adequate for the performance of our duties is

greater with the Cavalry than with any other Arm. A few days' training at a pinch will turn out an Infantry soldier or gunner, whose presence need not necessarily be either dangerous or even detrimental to the efficiency of his company or battery. An unbroken horse or a bad rider may create confusion in the ranks of the steadiest squadron.

The danger is still further aggravated by the fact that a rapid reduction in their available numbers is certain to take place, owing to the increased demands which the future must make upon the endurance of our horsemen, and presumably also the heavier losses they will be called upon to suffer in action, both of which must be intensified in proportion as their numerical inadequacy for the tasks incurring on them increases. Germany is certainly comparatively well supplied with horses; but owing to the demands of the aforesaid new formations, which must be set on foot immediately on the declaration of hostilities upon the complement of animals fit for war purposes within our own frontiers, the country will be practically denuded, and only those horses still too young or those too old for the field will be left behind.

Even among those classified as 'fit for war' but few are fit for Cavalry purposes. Riding horses good enough for the Infantry and Train—even for the Artillery—may, no doubt, be found; but equal to the requirements made on the Cavalry horse there are but few indeed, and even this number is diminishing yearly. As regards the supply from foreign sources, this must depend on the political situation—*i.e.*, on conditions which lie beyond our control. Even when these conditions are favourable, horses cannot be usefully drafted into the ranks without prolonged

training and breaking to fit them for their new duties. Hence the conclusion is inevitable that the numerical strength of our Cavalry, already, as I have shown, so inadequate, must fall off very rapidly at the commencement of a campaign, because its rapid reinforcement with satisfactory material is, under the circumstances, quite out of the question.

From this conclusion there is no escape; and in view of the increased importance I have above assigned to the due performance of all Cavalry duties, its recognition carries with it, as its corollary, the absolute need for the numerical augmentation of this branch of the service.

The enormous mechanism of our modern Armies can only work normally and successfully when its constituent 'power factors'—*i.e.*, the three Arms—have been apportioned with due regard to the work to be accomplished. If driving-power fails any one portion, the danger lies near that at some critical moment the whole apparatus will suffer in sympathy, and fail to respond to the strain it is called upon to endure.

The question of this increase in the Cavalry has, indeed, often before been raised, but never with the weight of concentrated conviction the situation, in my opinion, deserves. For the most part, only expedients to avoid the bitter necessity of a serious augmentation have been suggested. Thus it has been proposed to form new regiments of four squadrons each by taking away from the existing ones their fifth squadron, and the suggestion has been supported by an appeal to the fact that in War-time only four squadrons per regiment take the field.

No expert, however, can fail to agree with Lieutenant-

General von Pelet-Narbonne, who maintains in his 'Cavalry Regiments of Four Squadrons' (*Kreuz Zeitung*, January 17, 1899) that such a measure would entail the ruin of our Cavalry, and would destroy with one blow all that the reorganizations of 1859 and 1860 have done for the War efficiency of our regiments by entailing a depreciation of the value of the squadrons at the very moment when called on to move out and face the enemy.

Thus he writes: 405 squadrons are in Peace retained on the lower establishment of 133, or the middle one of 137. Their numbers are 170 of the former, 235 of the latter, and the War strength averages 150 per squadron. To attain this figure those on the lower establishment need 17 horses, those on the middle 13.

With no fifth squadron to draw upon for horses, as at present, these vacancies would have to be filled by 'augmentation horses'—*i.e.*, animals straight from the country, thoroughly raw and unaccustomed to work under the rider, often also of inferior quality. But these 13 to 17 horses per squadron by no means exhaust the situation. The field squadrons must leave their youngest remounts—say 15 in number—still too young and unbroken, behind them; for the experiences of the last War proved abundantly that where this precaution was neglected, the greater part of them broke down under the hardships of the Campaign. Taking even the most favourable time of year for mobilization—viz., in May—then out of the 15 young remounts of good material, and with careful choice, not more than 8 will be found fit for the ranks; the remainder will have to be left behind with the 'Depot' squadron, to be sent on afterwards. Any

other procedure would only lead to the useless sacrifice of these valuable young animals. The places of the horses thus left behind will, therefore, also have to be filled by augmentation horses, thus bringing the number of these up to 24 and 20 respectively.

Then we still have to provide for the wants of the Depot squadron, which has to train the recruits, and for these a further number of trained horses, averaging 32, must be left behind, or another 8 from each squadron; and, finally, another 2 per squadron will be required for Staff orderlies and Staff guard duties.

According to this calculation, the Field squadron would have to move out with from 34 to 30 augmentation horses (the sixty squadrons on the higher establishment with 27).

The matter, however, presents a totally different appearance when in peace five squadrons are in existence, of which one remains behind as a depot. Taking away the 35 horses for recruits, and following our previous calculation of 7 young remounts, there would remain on the lower establishment 91 efficient horses to be divided amongst the other four squadrons, or 23 each, so that these would take the field with only 11, 7, or 4 'Augmentation horses,' according to the respective peace establishments of the regiments. With these numbers the squadron suffers no reduction of its efficiency, for these few can always be employed —in the squadron carts, etc.—at any rate, need not be in the ranks.

These figures, worked out in the spring of 1899, are still substantially correct, and it appears to me General von Pelet-Narbonne deals too leniently with this proposal for forming the fifth squadrons into new

regiments, because many of the calls made on the squadrons are even heavier than he assumes; besides, there are always in every squadron some inefficient or sick horses, which will presently have to be cast. Further, I consider it impracticable to take eight remounts into the field, for these young animals are by no means equal to the demands which modern conditions must make upon them from the very first days of mobilization.

Hence the number of augmentation horses will be considerably increased above General von Pelet's estimate, but he is unquestionably correct in his opinion that a large number of these untrained animals will exercise a more detrimental influence under existing conditions than formerly, when, after completed mobilization, the squadrons often had a considerable time in hand to weld into cohesion their constituent elements. Nowadays the regiments will be rapidly forwarded to the front by rail, and from the very commencement of hostilities the fullest demands will be made on their efficiency. Unbroken horses, and others not trained to the long gallops and trots of to-day, cannot possibly carry weights of from 230 to 240 pounds for many hours a day straight across country. After a very short spell most of the augmentation horses would be useless, and their presence would only have brought confusion and unsteadiness into the ranks of their squadrons.

These advantages might indeed be partially mitigated if the squadrons were raised in Peace to their full War establishment and somewhat above it—say, to 160 horses. But, on the other hand, this would mean a not inconsiderable increase in the Cavalry; on the other, our Peace conditions would be difficult

to adapt to such an organization. Without going closer into these details, it will be sufficient to point out that all our barracks and riding-schools are designed for five squadrons; and further, that we do not need numerically stronger regiments, but a greater number, in order to satisfy all requirements.

Hence, if it is admitted that swamping our squadrons with thirty or more augmentation horses must diminish most seriously the efficiency of our Cavalry, then it follows that a still further increase in their number will make matters still worse. Such proposals have no doubt been made, and it certainly would be convenient if our Cavalry could thus easily on mobilization be increased by one-third to one-half its strength; but after what has been said, above all such suggestions must be seen to be impracticable, for squadrons which consisted, for instance, of one-half augmentation horses would be simply useless for War purposes. A proceeding, therefore, which brought such results in its train would imply no increase of the Arm, but rather the destruction of the existing standard of Peace-time efficiency.

Even as Divisional Cavalry such squadrons would be useless, for these require good individual horsemanship even more than those of the Independent Division for the performance of their special duties, and the necessary standard can never be attained with untrained horses.

All who put forward proposals of this nature are labouring under the dominion of a fundamental fallacy. They overlook the fact I have explained in the foregoing section, that Cavalry by its very nature can never be other than a highly-specialized Arm, and hence that the system adopted by the Infantry of

raising the cadres to War strength by the absorption of reserve men is for the Cavalry fundamentally impossible. For in the Infantry the ranks are filled by the addition of trained men; in the Cavalry they must be completed with untrained horses, and the untrained horses break down under service conditions much more rapidly than the men.

Our experience in 1870-1871 was conclusive on this point. Already towards the end of August—*i.e.*, in less than six weeks from the outbreak of the War—the greater part of the augmentation horses were quite useless for field purposes. If one looks up the reports in the War Archives, everywhere this complaint about the untrained animals is recurrent.

From all the above-mentioned circumstances it must be clear that a numerical increase in the Cavalry is most urgently called for, and in my opinion it would be best if this indispensable increase, the need for which is becoming apparent even to public opinion, were grafted upon the existing five-squadron system, which at least guarantees a certain amount of preparation of the augmentation horses, without entailing the reduction of the squadrons below the minimum standard necessary for efficiency. I would, however, be willing to support any other method which would give a sensible increase in the Cavalry strength of our Peace establishment, and only protest against any scheme which would seek to swell out the ranks or create new units on mobilization; for all these are mere self-delusion, increasing, no doubt, the numbers on paper, but in reality striking at the efficiency of the Arm in the most vital manner.

If, then, at the moment there may be conditions outside my ken which render a measure of the nature

I have indicated impracticable, we must, nevertheless, not close our eyes to the fact that, after the recent reorganization of the Artillery, the creation of an adequate number of Cavalry regiments in the nearest future is an absolute necessity, and that in the meanwhile any such palliative as a recourse to the cadre system must be absolutely rejected.

As an indispensable complement of the proposal to form new regiments, so that we shall not be compelled to fall back on an inferior class of horse to meet their requirements, and at the same time to insure as far as possible a supply of suitable remounts to replace our losses in War, further encouragement of horse-breeding operations in our own territories is most urgently called for. This can only be attained by a further reasonable increase in the price paid for remounts.*

Such a measure must form a preliminary to the coming increase of the Arm, and the sooner it is undertaken the better will be the result.

These points of view cannot be insisted upon too vehemently, since even in Military circles they have not everywhere received the consideration they deserve, and it is most necessary that public opinion, which finds its ultimate expression within the walls of the Reichstag, should receive adequate instruction as to the vital interests involved.

In any case, the difficulties attending any adequate increase of our Cavalry must not be underrated, and we must remain prepared to face the strain of a Euro-

* In passing, I may note that some portions of Lorraine are amongst the richest in horse-flesh in all Germany. Here, by the introduction of suitable stallions, an excellent Artillery horse might be bred ; but nothing is being done in this direction.

pean Campaign with a strength inadequate for the difficult and most momentous problems we shall be called on to face—problems which, according to the measure of success or the reverse attending their solution, will exercise the most far-reaching consequences on the whole course of the War.

Under all circumstances we shall have to endeavour to attain at least that measure of success which the Army Headquarters unconditionally require to render possible their own effective operations.

Superior energy and skill in the conduct of our operations, concentration of our forces, increased care for the maintenance both of the moral and material in our Commands, increased boldness in our undertakings, together with wise moderation in the choice of our objectives, must all help to compensate for our numerical weakness, and while consciously leaving on one side everything not directly conducive to our immediate purpose, we must seek to appear at the psychological moment, and from the decisive direction, with forces in hand, and by the energetic use of the relative and local superiority such concentration confers, to gain and keep an advantage to the end of the campaign. The higher, however, the demands which, with this purpose in view, we are compelled to make on the moral, physical, and material strength of the troops, the more we are justified in demanding that, at least as regards organization and training, they shall be equal to all demands modern conditions may impose upon them. If in these points we have no sufficient security guaranteeing the highest possible performances, it would be impossible to count even on the most necessary results in time of War.

The question, then, arises whether from these points

of view our German Cavalry is equal to the maximum strain it may be called on to endure.

As concerns our organization, there is a widespread demand that those commands which form the basis of our War organization—*i.e.*, the Cavalry Divisions—should exist already in Peace as concrete units; and in support of this it is urged that men and leaders must know each other mutually if the full effect of their combined power is to be realized in War. It is also held that if once these Divisions were definitely formed, then as a consequence of their existence they would more frequently be brought together for manœuvres on a large scale, to the benefit of the tactical training of all concerned.

It appears to me that the real centre of gravity in this question of organization lies less in this permanent constitution of the Division in Peace than people generally imagine.

The requirement that leaders and men should know one another I cannot accept as an indispensable condition of War-time efficiency. However desirable it may appear that such a relation should exist, it is one which has never been, and never can be, guaranteed in War. The practicable ideal rather consists in this, that the principles in accordance with which the commands are handled should be so thoroughly flesh and blood of both leaders and led, that under all circumstances a sufficient result is secure. To reach this ideal is the true purpose of our training.

In the permanent existence of Divisions it seems to me there is great danger that such a guarantee for their successful employment would be sacrificed.

We have seen that the demands likely to be made on the Cavalry require widely different arrangement

of the disposable forces; that this requirement increases in importance as the Arm falls numerically beneath the needs of the situation, and that only a most adaptable organization can deal adequately with the emergencies this numerical insufficiency may entail. Hence it is to be feared that a permanent constitution in Divisions might lose this requisite adaptability, and, however highly we may appreciate the advantages of a firmly welded War organization, one should never allow the form to interfere with the practical application of the means—*i.e.*, never allow the troops to become so rigid as to hamper their employment in the field. But this is just what would happen if the Divisions were maintained on a permanent War footing.

Every application of Cavalry Masses requires a certain measure of drill control, because it depends always on the movement of closed bodies of troops, and if the Cavalry Divisions are constantly drilled together under the same Leader in Peace, there is at least a very great risk that this certain degree of drill control, which we recognise as indispensable, will degenerate into hard-and-fast prescription, since the Leader has always the same number of units at his disposal, and will thus by degrees habituate himself to consider these as invariable quantities in the solution of every tactical problem.

Our experiences with the Regulations for 1876 show that this danger is by no means imaginary, for by the constant practice of the so-called 'Three-Line Tactics' we had already progressed far on the downward path which leads to tactical destruction. If the 'Form' would not fit the conditions, so much the worse for the conditions. Fortunately, thanks to subsequent changes, we have shed the worst of these tendencies, and are on the high-road towards freer and more

adaptable tactical formations, but to me it seems that any attempt to fetter this progress by the adoption of a more or less rigid organization can only result in evil for the whole Arm. Rather should we lay down as a fixed principle that all Cavalry units must be able both to move and fight according to the same tactical principles, no matter in what order these units may be grouped together.

The question now arises whether our present formation of six regiments to a Division is really equal to all demands which may be made upon it; whether, in fact, in view of the strategical requirements it may be called on to fulfil, and the degree of resistance to their execution it is likely to encounter, six regiments will prove numerically equal to their task.

Considered in relation to the enormous Armies of the present day, and the still greater possibilities a general call to arms of a whole nation may involve, six regiments represent a very small actual factor of strength. If they should have to take the field for an independent mission, it would not even be possible to keep them all together. The protection of the flanks, and of the necessary baggage and supply trains, the far-reaching reconnaissances, and the need for extended requisitions, all unite to compel the creation of detachments, which in the aggregate must make considerable inroads on the total strength. Then there is the inevitable tale of losses on the march, the necessity for subdivision of one's forces for the passage or the turning of defiles; in fact, the demands are so many that the true fighting body of the Division—*i.e.*, the squadrons available for the ultimate decisive shock—is represented by a very small fraction of its original forces. If a complete Division can place only 3,600

sabres in the field, or, dismounted, from 1,680 to 3,000 rifles, according to the number of horse-holders required—figures which even without the above-mentioned detachments are quite inconsiderable in relation to what even an inconsiderable Infantry opponent can bring into action—what prospect of success is there for the weakened Independent Division in the execution of quite minor operations, when even in 1870-1871 not once, but frequently, the main body of our Cavalry Divisions shrank often to six or seven weak squadrons.

It is chiefly the consequences of our, on the whole, satisfactory experiences in the above Campaign which have led us to accept the existing Division of six regiments as a satisfactory solution of this problem of strength; but we forget that in those days we had no Cavalry opponent to encounter, and that our sphere of action, owing to the want on our side of an adequate equipment of firearms, was small indeed in comparison with what we must expect in the future. We are encouraged in our illusion by the fact that in our Peace manœuvres the strength of the opposing forces is generally nearly equal, and also because the actual demands War will make upon the Arm are still in these exercises very imperfectly realized, and from the nature of the case cannot receive full recognition. Further, there is the fact that our possible opponents have adopted the same organization, and last, but not least, there remains the view that every tactical unit of the Cavalry must not only be capable of being strategically employed as a whole, but must also be in point of size within the control of its Leader as a tactical unit.

Our unfortunate experiences with larger formations in 1866 are often cited in favour of our present system, the point being ignored that it was not the size of

these bodies, but the faulty methods in which they were employed, both strategically and tactically, that led to our disappointment.

I think, therefore, that unprejudiced consideration must come to the conclusion that our Divisions as they now exist are too weak for the many and most decisive operations they will be called on to undertake. The absolute necessity to secure the victory over the enemy's Cavalry at the decisive point under all circumstances, and at the same time to retain a sufficient force in hand to reap all the consequences of that victory, will, I am convinced, lead to a materially greater concentration of power in the single unit.

If from this point of view the permanent constitution of Cavalry Divisions cannot be upheld, it follows that even less is to be said for the formation of still stronger units in Peace-time, for this measure would entail in even greater degree the very same strategical and tactical limitations we have noted in the case of the Divisions, and still further cramp the necessary adaptability of the organization to meet the conditions of our Peace-time training. At the same time, it is clear that it is of the utmost importance that the formation of these stronger formations, Corps, or Divisions of greater numerical strength, the necessity for which can be recognised in advance, should be arranged for in the mobilization plans, and not built up afterwards by the mere combination of existing Divisions.

For such bodies cannot be improvised altogether. In order to develop their full efficiency they require a carefully selected and ample staff of men who can be trusted to pull well together, and who have at their disposal all the auxiliary services necessary for greater

independent operations For these both trains and columns are needed, which must be larger than those of two or even three single Divisions; for, on the one hand, the greater size of the Corps entails closer concentration of its units, thus making heavier demands on the provision columns; and, on the other, the Corps must be capable of carrying out longer and more obstinate engagements than a single Division.

It is, therefore, most essential that the several Staffs required for the Corps to be created in War-time should be thoroughly trained so as to insure their working together, and the trains and columns necessary to complete these units should be held ready for them in time of Peace.*

To hand over the functions of Corps Commander to the senior of the two or three Divisional Commanders would hardly be an adequate means of securing satisfactory results even for a single day of battle; still less could it suffice in the case of an independent strategic operation. On the other hand, it is not at all essential that the Corps thus formed at the outset of operations should be retained intact throughout their whole period. One can make detachments from them, or reinforce them according to circumstances, and thus attain that very flexibility of organization which I have endeavoured to prove to be an absolutely indispensable factor to meet the conditions of our times.

* In a report addressed to H.M. the King in 1868 by General von Moltke on the experiences deduced from the events of 1866, it is proposed that there should be at Army Headquarters the Staff of a Cavalry Corps Command, together with its necessary Administrative services, always ready for the field. As Field Marshal he returns to the idea in another place, adding, 'particularly when we have found the right "Murat" to lead it' (Moltke's 'Militarische Werke,' II., Second Part, First Group, B).

It appears to me also that the same advantage which it is hoped to realize by the creation of permanent Divisions can be reached by other roads, and with still better results.

I would divide the whole territory of the German Empire into a number of territorial districts, and call them Cavalry Inspections, or Corps—the name is immaterial—each to comprise about twenty regiments, and subdivide these again into sub-Inspections (*i.e.*, Divisions and Brigades), and thus obtain, not only the foundations and the Staffs for a practical War formation, but for a systematic preparation of the Arm in time of Peace. The Inspections would detail annually the necessary squadrons on a War strength for manœuvres of the three Arms, according to a changing roster, and hold special Cavalry manœuvres in a manner I propose to develop hereafter.

We should thus, from the point of view of organization, gain the advantage of having the cadres for both Corps and Divisions ready in time of Peace, without being bound once for all to a hard-and-fast strength for the Division.

It may be objected that it would be illogical to separate the Cavalry from the Army Corps and Divisional Commands at the very moment that we have assigned the whole of the Artillery to the Infantry Divisions, but for the latter Arm the conditions are quite different. It always fights in combination with the other Arms; by itself it cannot fight at all.

The Cavalry, on the other hand, as regards its principal masses, is quite independent, and only occasionally in moments of crisis intervenes in the action of the other Arms, even then still as an inde-

pendent unit. The connection with the remainder of the Army would be sufficiently secured by its participation in the annual manœuvres of the three Arms, and, as at present, Cavalry Brigade Commanders would still have to be employed in the arrangement of the Brigade manœuvres. The participation of the Cavalry Regiments in the Garrison Field Service exercises would remain matter of arrangement between the respective Commands, but definite rules would have to be drawn up to secure their effective co-operation.

The necessary trains for the Inspections and Divisions would be kept ready in time of Peace, and whether Horse Artillery—possibly also Maxim guns—should be permanently allotted to them or otherwise, might remain open for further discussion, though there is undoubtedly much to be urged in favour of the suggestion.

In this manner I believe an organization could be created which would meet all reasonable requirements. Certain new Staffs, fully equipped with both General Staff Officers and those necessary for the contemplated trains, etc., would be of course necessary, for in case of War such creations cannot be improvised to work together without most detrimental friction for any units, and least of all for those which from the first moment of hostilities will be called on for decisive action, and thus have less time and opportunity to shake down into their new duties.

A practical Peace Organization, such as in fact we do not at present possess, is a necessity of the first importance. But 'Mobility' in the Arm itself remains the prime condition of efficiency in its strategical activity, which, as we have seen above, must hence-

forward be considered the most important sphere of its duties.

To secure this mobility is, therefore, our unconditional duty, and it is in this direction in particular that, in my opinion, our Cavalry is as yet hardly sufficiently prepared for the tasks that await it.

Strategical 'mobility' certainly depends in the first place on the excellence of the horse supply and the suitable 'training' both of man and horse; but the tactical independence of the troops themselves, and the means of maintaining them in condition—*i.e.*, conditions of supply—are at least of equal importance. Owing to our experiences in the French Campaign, where food and fodder were generally abundant, sufficient attention has not been given universally to this factor. Had we been compelled to undergo the same hardships as the Russians in 1877-1878, our views would doubtless have been very different.

The amount of forage that even under most favourable circumstances can be carried on the horses is very small. To count on finding even that amount always in the country through which we may have to operate would be more than imprudent. Even in 1870-1871 we could not always find what we needed in spite of the very favourable agricultural conditions, and with the enormous Armies of the present day we shall probably find the country even more exhausted of supplies than formerly, particularly in the latter phases of the struggle, except when one has the good-fortune to fall upon rich stretches of the country which by chance may have escaped the devastation of previous operations.

We may also be called on to work in sparsely settled districts with a large export trade in corn, in

which at times stocks may sink very low. In short, unless we wish to be hampered at every step of our movements by the necessity for wide-reaching foraging expeditions, we shall have to rely upon our magazines and the supplies which can be transmitted from them to the front through the agency of our supply columns. The carrying capacity and mobility of the latter, therefore, condition inexorably the degree of mobility in strategical operations which, under all circumstances, the Cavalry can be counted on to develop. Whoever relies on more will lay himself open to most bitter disappointments exactly at the decisive moments.

The supply trains must, therefore, be able to march at least as fast as the troops themselves, for only on this condition is there any guarantee that even under difficult circumstances the necessary supplies will be forthcoming; yet though experience most abundantly demonstrates the difficulties of maintaining the supplies of the Infantry in spite of the fact that, as a rule, their columns can cover the ground faster than the men can march, there appears to be a tacit assumption that with the Cavalry the trains will always arrive in time, although they move far slower than the troops they follow and supply.

There was, indeed, a certain amount of justification for this idea in the days when Cavalry were more or less tied to the movements of the rest of the Army; but nowadays, when Cavalry operates independently, and must cover long distances in the shortest time, it has become simply preposterous.

We have only to consider that we have now to reckon with average daily marches of from twenty-five to thirty miles, and that a beaten or evading force may have to retrace the same distance, perhaps even

on the very same day, at a much faster rate than that at which it advanced, to perceive its absurdity. What chance would there be for waggons which could not go out of a walk, and cannot reverse on the road itself, which check at every hill, and sink to the axles in mud or sand? How can strategically independent Cavalry provide for the security of its baggage when it must often be left some days' marches behind? And yet it is precisely when operating against an active opposing Cavalry or an insurgent population that protection for the baggage becomes most indispensable. Again, how are such trains to be cleared away from the front when the main bodies of the two armies are closing on one another for battle? or how, after it is decided, can they be brought forward again to follow their Cavalry in pursuit, and convey to it the supplies which in such moments it will most need, and on whose prompt arrival its striking radius will depend? How, with insufficient mobility, will they maintain the connection between the combatants in front and the standing magazines, or even with the movable supply depots following behind the marching Army?

Here we come upon one of the most difficult problems of the day, and it cannot be insisted on too strongly that its solution during Peace is an indispensable condition of the efficiency of the Arm in War. The Cavalry trains must be organized in such a manner that they will be able to march at least as fast as the Cavalry itself, and be adequate in number to carry from five to six days' corn. Only when this demand has been complied with will it be possible to count on the attainment of the strategical independence at which we aim, and to attempt all that this implies

with less would only lead to the complete breakdown of the Arm, which, as we have already seen, under existing conditions, can never be efficiently replaced during the same campaign.

It is not alone with the splendid chaussées of France that we must reckon, but with the sand roads of East and West Prussia, the swamps of Poland and Russia, and so forth, on all of which the same degree of mobility must be developed, for the speed of the Cavalry itself is practically independent of the nature of the roads. Without going further into the detailed measures necessary to attain this ideal, the importance of which must be evident to every practical soldier, I would call attention to only one fundamental consideration: the desire to curtail the length of supply columns by concentrating the loads, with the object of lessening the congestion of the roads and diminishing the time needed to bring their contents to the troops, is sound as long as it attains its object, fatal everywhere else.*

Now, the Cavalry Masses move under different conditions to the rest of the Army. Either they are in the front of or on the flanks; in the latter case, they have roads at their own disposal, in the former, being generally some days' march in advance, they clear the front when collision is imminent by moving to the flanks, and only quite exceptionally retire through the advancing columns, and in all cases they must be able to get off the roads quickly. The depth of these columns is comparatively unimportant.

Hence, from the strategical relations of the Cavalry Masses to the rest of the Army there arises no par-

* Generally defeats its own object; the heavy load destroys the roads, causes breakdowns and delays, etc.

ticular reason to endeavour to shorten their trains. If the heavy baggage of a Cavalry Division is two and a half or five kilometres in length it is tolerably immaterial, but it is imperative, as we have seen, that they should be able to move and get out of the way. Hence, it is not the number of waggons which concerns us, but their individual lightness and mobility, so that on all roads they can follow their units at a trot, and only in the case of Divisional Cavalry can the other point of view be admitted.

The possibility must also not be overlooked that it may not always be practical for Cavalry masses to fill up their supply columns direct from the Army reserves; and to meet this, second echelons of waggons will be required, in every degree as mobile as the first, and so organized as to require a minimum escort for their safety.

For such escorts Cavalry Reservists and men of the Landwehr exist in adequate numbers, and armed with a useful carbine and mounted on horses, only as a means of locomotion, they will answer their purpose well enough.

No matter, however, how ample the supply of these columns may be, or how mobile, circumstances will still arise during periods of great concentration in which it will be impossible to bring up supply waggons in sufficient numbers. In these cases we require an emergency horse ration, which within a small compass contains great nourishment.

Too much cannot be expected from such a ration; for instance, it cannot be bulky enough to fill the animal's stomach. All that is necessary is that it should be willingly eaten by the horses, keep well, and be easily carried. It should contain about three

times the nutritive qualities, weight for weight, of oats, and should suffice to keep horses in condition for three or four days in succession. These demands are fairly satisfied by a food manufactured by Marck at Darmstadt. It should be always carried in the field and replenished as consumed, and with it even the most advanced patrols might be made independent of requisitions, a matter which appears to me of the greatest importance.

The fundamental condition of mobility being thus satisfied, the next step will be to insure the technical and tactical independence of the units under all circumstances which can be reasonably foreseen.

In this direction much has been done, and materials for the destruction of railways, folding pontoons, and a field telegraph now form part of our equipment. The opportunities for the use of the latter in the course of rapid movements—*i.e.*, just in the most important sphere of our activities—seem to me highly problematical, as I have already pointed out; and the waggons which transport the bridging equipment are too heavy to be always at hand when most needed. Essentially, it seems only fitted to facilitate the progress of smaller bodies of troops, and would hardly suffice to secure rapid and safe passage of Cavalry Masses with all their attendant trains over the rivers for which we ought to be prepared. For such purposes they would only suffice if all the boats of a whole Division were united into one bridging train.

Nevertheless, the collapsible boats are a most useful concession, and they would be still more so if the load was more suitably subdivided; as it is, the weight of the whole waggon ties us too much to the made roads. For the Divisional Cavalry, which always moves in

close connection with the Infantry, and in need can always fall back upon the Divisional Bridge Train, it has no particular value, and it would therefore be better if, in War-time, all the collapsible boat equipment were handed over to the independent Cavalry Divisions, and their bridging equipment thus augmented.

More important, however, than this collapsible boat question is the matter of the pioneer detachments to be assigned to the Cavalry Divisions which require further equipment. A waggon of bridging material just sufficient to cross smaller ditches and watercourses, which can neither be jumped nor scrambled over, but which require only one, or at most two, bays, would be invaluable, for it is just these little hindrances, whose importance cannot be measured or deduced from the map, which may bring most important Cavalry undertakings unexpectedly to a check, particularly when in an enemy's country all the culverts, etc., have been destroyed. In the days of Frederic the Great such bridging equipment was often assigned to the Cavalry marching at the head of the Columns, in order to help them over similar obstacles.

Given, however, that all has been done to attain the degree of collective mobility we require, a point of equal importance is that the troops should be adequately provided with all they require for their tactical action. In this respect, it cannot be too much insisted upon that carbine ammunition should be placed in the very first line; our present allowance is altogether insufficient.

The importance of dismounted action, as we have already seen, has enormously increased. Almost daily, under certain conditions, we shall have to have

recourse to our firearms, and often be obliged to expend very considerable quantities of ammunition to attain the object we fight for. The replenishment of this consumption is far more difficult in our case than with the Infantry, particularly in operations partaking of the nature of raids, in which our communications are likely to be interrupted. These conditions require first of all a considerable increase in the number of rounds carried on the man's person, and also in the number of Small Arm Ammunition waggons attached to the units, and the regulations for the replenishment of these require also corresponding development.

Further, it must be pointed out with all possible insistence that the present equipment of the trooper is thoroughly impracticable. That the carbine should be carried on the horse and the sword on the man is opposed to common sense, for the latter is only of use when mounted, the former only on foot. The sword should, therefore, be attached to the saddle, the carbine to the man, as is, in fact, the practice of all races of born horsemen. A practicable method of attachment is certainly capable of being devised; it is probably only the question of expense that stands in the way of its solution. The consequences, however, of the existing attachment to the saddle are that the weapon must be shorter than that of the Infantry soldier, and hence has a lesser range; but it is precisely the Cavalry that requires to be able to obtain good results at long ranges. Even against Infantry it must always be in a position to obtain decisive results in the shortest time. To obtain these ends it needs a weapon at least equal, if possible superior, to that of the Infantry; and instead it has only the carbine, a

weapon of most restricted range, and most inadequately sighted. It is required of Cavalry that it should break off an engagement when the enemy approaches within 700 metres (Drill Regulations, No. 362), and all the training the man gets in Peace is at 600 metres at target practice, and only quite occasionally, if at all, at greater distances at field practice.

I consider it most important that the Cavalry should be supplied with a weapon which admits of accurate practice at long ranges, and for which the greatest number of rounds can be carried. This would entail, on the one hand, an increase in the length of the weapon carried; on the other, a reduction in calibre, which should be made as small as possible. We might thus safely go down to a 6-millimetre bore, and increase the ammunition accordingly. The desire to retain the same cartridge as the Infantry, to facilitate mutual assistance in ammunition supply on occasions, seems to me of quite secondary importance. As long as the Cavalry were still tied to the Infantry on the line of march this consideration had indeed some weight; but now that it moves far in front of, or on the flanks of, the Infantry columns, and has its own arrangements for ammunition supply, the case is quite different. The point nowadays is to make sure of that degree of effect which is unconditionally necessary to our purpose, and for this we require a weapon specially adapted to our particular need.

Our method of carrying our cartridges in the pouch attached to the cross-belt is also impracticable. The bandoliers of the Boers would be undoubtedly preferable, and could at the same time be made use of to secure the carbine on the back.

It is also a matter for serious consideration whether

cycle detachments should not be attached to the Cavalry,* and I think I am not going too far in estimating fifteen to twenty cyclists per regiment as a suitable number to perform the many duties which may fall to their lot. On the advantages they confer I have already dwelt (Book I., Chap. VIII.), and further, I would advocate the addition of portable or wheelable Maxims to the Cavalry to add to their fire power. The latest patterns of this weapon are capable of easy transportation, and can come into action very rapidly. Naturally such heavy batteries as we now possess should be avoided. As regards this latter weapon, one should not think of it primarily as destined to take part in the real Cavalry duel; one should do nothing in this direction to rob the horsemen of their confidence in themselves by teaching them to lean on the firearm for support. Even the effect of the Artillery in this respect is not always and everywhere advantageous. One is too much inclined to make the action of the Cavalry depend on the effect of the guns, and thus to sacrifice the initiative when opposed to an enemy's horse. Nor would there be many opportunities in practice for the Maxims to render support to the charge. In the introductory phases of an engagement—*i.e.*, when the enemy is still at a considerable distance—they promise little results, and in the moments when the 'Masses' are sent forward to the attack, they would get in the way and hinder their freedom of movement. On the other hand, they would be of great use in cases where it is necessary to overcome or parry an Infantry opponent, and in

* The wheel should be so low that the man could use his rifle without dismounting, and, if possible, it should be 'transportable' ? 'folding').

the battle, or in pursuit, when the Cavalry succeed in getting in on the flanks or rear of the enemy's chief masses, they might prove invaluable. Here, where reserves, columns, and trains all form suitable targets, they would not only add materially to the striking power of the Cavalry, but increase its radius of action very materially.

By their side the Artillery will always maintain its high importance for the fight against localities, woods, and defiles, and with this Arm the German Cavalry is, in my opinion, sufficiently supplied; only—and this is of the greatest importance—more adequate steps to insure ammunition supply are essential in the case of the Independent Cavalry Masses. Here, too, we shall have to reckon with far higher consumption than in 1870-1871, and the greater distances will make it impossible to replenish from the general Reserves of the Army. The Cavalry, therefore, require sufficient ammunition columns of its very own.

The nature of Cavalry operations indicate yet another requirement—namely, batteries so organized that to every brigade of two regiments one battery of four pieces should be assigned. Many will be the occasions in our strategical operations on which guns will be required, and in most of these it is more a question of having *some* Artillery at hand rather than of the development of superior fire power—*i.e.*, a few shells into a village at the right time may be all that is needed for our purpose. Further, in operating on several roads it can seldom be foretold with exactness on which road the need may first arise.

Under these conditions it is of the greatest importance to be able, if necessary, to assign a battery to each brigade, and at the same time not to allow the

half of the whole available Artillery to escape from control.*

Further, these small batteries are both handier and more mobile in themselves; they are, therefore, better suited to Cavalry requirements, and at the same time the power of concentration when such is required is fully retained.

The advantage of this proposed division seems, therefore, to me sufficiently clear to need no further recommendation.†

This organization of the Artillery requires, however, to be supplemented by the introduction of a true quick-firing gun, even if it is necessary to reduce the calibre somewhat to keep down the weight. For it is particularly with the Cavalry, and especially in the Cavalry duel, when the opportunities for Artillery action are often compressed into a very few moments, and yet a great effect must be attained, that a gun without recoil and a great rapidity of loading is most urgently required. If the Cavalry is thus equipped with all that the conditions of War demand and modern technical skill can supply, then it will find in these — at least in part — compensation for its numerical weakness on condition that at the same time it also succeeds in raising its training to a corresponding height.

It cannot be denied that in this direction all ranks have worked with most devoted and admirable industry, and that new points of view, new methods,

* With stronger Divisions, a corresponding increase in Artillery must, of course, be made.

† King William I. had already suggested the formation of batteries of four guns for the Cavalry in 1869—in a marginal note on the report of Moltke's of 1868—already referred to in the note on p. 166 above.

and new aims towards which to strive have been opened up. But, on the whole, this question of the training of our Cavalry is still based upon the ideas of a period which lies behind us. There has been no conscious breach with the past, even in those very fields wherein the developments and demands of modern times have brought about a complete disturbance of all military relations.

That a method of training which does not take into account the phenomena of modern Warfare, and follow them even to their furthermost consequences, can never give satisfactory results, needs no demonstration. But a method free from these objections we have to find. In its training our Cavalry *must* excel all others if it would maintain its position on the field of battle, and it can do so, for it possesses by far the best material both in men and horses of any country in the Continent of Europe. There are only two essentials which we must bear in mind. First, we must be absolutely clear as to those points in which our system is behind the requirements of the time, and what objectives we must now pursue. Secondly, being satisfied as to the above, that we should take the straightest way which leads towards them, not hesitating to break with tradition wherever it hinders our advance.

If we now consider in the spirit of this first requirement the separate branches of Cavalry work which our training must embrace, the very first point which attracts attention is the vastly increased demands on the endurance of our horseflesh that will now be made, far exceeding what was required in our last Wars. Increase of endurance is thus an unconditional necessity.

Further, it is perfectly clear that in the combat of

Cavalry against Cavalry, the decision will depend on the action of the great tactical units, and that with regard to dismounted fighting, a complete revolution in the conditions has occurred. In future this will tend evermore to come to the front, and both points of view must be kept in mind in our training.

Finally, it is evident that the centre of gravity of these two factors is no longer in the same position. As long as decisive results in the combat itself were expected from the Cavalry, it was quite right and expedient to train them to meet this special requirement. But now, when it is clear that the combat is only a means to an end—that end being the possibility opened up by successful fighting to reconnoitre, screen, or break the enemy's communications—this change in the conditions must be taken into account in the process of our education.

Of course this is not to be understood in the sense that we can afford to neglect the training for the actual combat: the defeat of the enemy's Cavalry remains now, as always, the necessary condition of all subsequent activity; but the Arm must be taught to understand that victory in combat is only the first link in the chain of operations, and to extend its outlook beyond the point of actual collision, and to appreciate the tasks which are the consequence of success.

To this end we must undergo a preparation of a quite different character, for nowadays, freed from the chains which formerly bound us to conform to the action of the other Arms, we appear within the framework of the Great Armies indeed, but operating in independent 'Masses,' and this change in conditions extends its influence even to the smallest reconnoitring patrol.

In this new field our training must seek to follow the demands of War. It must accustom the troops to the greatness of their mission both with regard to time and space, attain higher results with the individual, raise the education of its officers above the sphere of the technicalities special to the Arm, and give them a wider horizon of general military conditions.

In what way we can reach these new ideals, in the best and most practical manner, I propose to investigate in the following chapters, and need only point out here that it is not my object to discuss every detail of military education, but rather to bring out the essentials, and lay stress on those questions which, in my opinion, compel us to strike out new ways to find our objective.

CHAPTER II

RIDING, FEEDING, AND TRAINING

When we discuss the training of the Cavalry, the first point which naturally occurs to us is the question of 'horsemanship'—*i.e.*, the breaking-in of the horses and the teaching of equitation to the men. Horsemanship is so absolutely the bed-rock of all Cavalry performances, that the advantages of improved methods of breaking and of equitation must bear fruit in every branch of their activity. Above all, they exercise the most enduring influence both on the conservation and endurance of the horses themselves.

Anglomaniacs and faddists, who, in spite of many a healthy impulse they have imparted, have nevertheless exercised, and still seek to exercise, an influence the reverse of favourable upon our Cavalry, maintain that for certain purposes one can obtain better results with horses broken by one of their short-cuts to the object, and then 'trained' in the sense that racehorses and hunters are prepared for their work, than with those who have been gradually brought forward by the methods in use in our Cavalry schools, and at the same time secure the advantage of 'unconditional obedience' in the horse, a result which they allege cannot be always counted on with our existing methods.

On the other hand, the fact remains that our recruits, in the short time available for their education, can only be well and quickly taught on well-trained pliable horses. That such horses, with sufficient exercise, go better and more safely across country than those brought forward by more hasty methods, is sufficiently proved by the fact that all our steeplechase riders in the Army take the greatest pains to prepare their horses thoroughly (by school methods understood), because experience shows that this preparation alone gives them a chance against the more highly-priced animals with which they are called on to compete. Only this thorough training guarantees good individual riding, and insures the 'pliability' which alone makes it possible to correct disobedience rapidly should it arise. And, further, there can be no question that this prolonged preparation improves the endurance of the horse—on that point at least experience leaves no room for doubt. The thoroughly broken horse, which moves in easy balance, with all its muscle thoroughly well and equally developed, not only saves its forelegs and joints, and supports the spinal arch better, but trots easier, and hence for longer periods with less fatigue, than the unpliable animal, who stiffens itself against the rider's load, and thus expends its power uselessly, and the rider himself is far less shaken about under the former, a point by no means to be neglected.

The recognition of these facts has at length led us to break with the Anglomania of former years, and the tendency towards improved preparation has become more evident, whilst the centrifugal strivings of individuals no longer find acceptance. On the other hand, it seems to me beyond a doubt that the objects which

we wish to obtain from our Military school of horsemanship could in many respects be reached more directly and better than is at present the case.

In conformity with the whole essence of modern War, the individual training of both man and horse must form the foundation of our whole education—that is to say, steadiness in the movement of closed bodies must be the consequence of individual horsemanship. Only in this way can the bodily, intellectual, and moral qualities of both man and horse be brought into useful activity, and in this way only can we conquer the gregarious instincts of the horses and develop in their riders the individuality which modern conditions absolutely demand.

More stress requires to be laid on riding with one hand only and with arms (*i.e.*, drawn swords), for the bit, with or without a feeling on the bridoon, is in War the only practical method of direction; and the use of his weapons when mounted must have become second nature to the man if they are not to be a constant impediment to him in the control of his horse. Finally, independent riding across country must be encouraged by every conceivable means.

To attain all this will only be possible if we succeed in overcoming the preliminary steps of the man's education—*i.e.*, the elementary training of man and horse—more rapidly than has hitherto been the case, and thus gain time for the true practical preparation for the field. If from this standpoint we look at our present system, it will soon be clear where to apply the lever.

First, it should be possible, with the better bred and stauncher material we now receive, to make more rapid progress in the first year than has hitherto been

generally the case. By the increased demands and the greater freedom in the choice of means allowed us by the new Regulations as compared with the conditions formerly prevalent, considerable changes have been made; the point now is, in what manner to derive the fullest advantage from this greater freedom for the practical curtailment of the periods previously allotted for each stage in the training.

But prudence is necessary in this direction. That the English thoroughbred, for instance, develops better under work in its early years, admits of no doubt whatever; but there is room to question whether this experience can be transferred without modification to our present Remounts, although many of them have a strong strain of English blood. Our Prussian horses, for instance, only reach their full development between the seventh and eighth years; it would, therefore, be a mistake to attempt to force them up to the full demands made on a Cavalry horse before that age. This slowness of growth must always be considered, and the animals be saved as much as possible; but there is still room to unite with this necessary concession increased demands on the degree of training.

Without any detriment to their efficiency, the young remounts can be taken in hand immediately on joining their regiments, instead of waiting till the conclusion of the manœuvres, as is still a common practice. It seems feasible, also, to begin with the gallop earlier than was formerly the custom; and, finally, it is by no means absolutely necessary to go back to the bridoon again at the commencement of their second year's training.* One can well go on with riding on the bit

* Under the new Regulations this is now left to the discretion of the Regimental Commander.

at the point where the course was interrupted by the manœuvres.

All these measures together produce quite a remarkable saving of time, and there cannot well be any doubt that in this way, as far as concerns the riding education of the horse alone—*i.e.*, without arms—the same standard of progress can be reached by Christmas of the second year as was formerly often only reached at the end of the second winter.

If from this foundation we go on to specific training of the charger—still working, of course, concurrently at the gymnastic side of his training also—to accustoming him to the curb, then by the end of February the remount ought easily to be ready to be placed in the ranks.

Side by side with this increase of rapidity in his training, we both can and must make the individual training the foundation of his whole education, so that from the very first the horse learns to go alone and with safety in all kinds of ground.

The very first lessons to accustom him to both saddle and rider are better given on the lunging rein than when led by an older horse, for nothing teaches the bad habit of 'sticking' more than this last practice. And since now the first months of training fall in the summer, we can avail ourselves of the fine weather to send out the young horses in charge of trustworthy riders, some of whom must be left behind even during the manœuvres, to go singly or in small groups under suitable supervision, which can easily be arranged, out into the country, if possible into woods and fairly difficult ground, to habituate them to minor obstacles and the objects one meets with, instead of, as formerly, keeping them in the school or manège, and making

them into 'stickers' first, only to have the trouble of breaking them of the habit, often after many a hard tussle, afterwards.

All through their subsequent training they must constantly be sent out singly into the country, and even in the school itself they should be exercised as little as possible in squads one behind the other.

It goes without saying that only the best horsemen should be trusted with the young horses, for bad habits developed at the beginning of their instruction are of all the most difficult to correct hereafter, and may ruin the result of all one's trouble.

That in this way we can meet the requirements of the service much more rapidly than by existing methods cannot be open to question and may be taken as practically settled, and similar considerations apply to the recruits.

The system laid down in the regulations does not go directly enough to the purpose, a consequence, no doubt, of the fact that we have now better horses on which to instruct them than at the time these instructions were evolved.

If one begins as soon as possible with the gallop and individual riding — if necessary on the lunge — and allows the recruit as soon as he has acquired anything approaching a firm seat to practise the aids for the leg and the side paces—passage and shoulder-in—one will attain quite different results than from riding only on straight lines and practising closing in the ranks. The practice in the use of the legs makes the men more independent and individual, compels them to trust to their seat, and not to hang on by the reins.

The individual riding makes the man drive his horse forward by the pressure of his legs, which he is not

compelled to do in the squad, where the horses follow one another almost automatically. The horses, too, are saved from becoming dull and heavy, as they are only too apt to do under the recruits of the old system.

By Christmas the recruits can thus be brought forward as far and farther than they now are by the time of the inspection on the bridoon, and can then go on to riding on the curb, so that by February they should be able to ride the side paces, gallop and change, and all other school paces, without arms, and generally be so firm in the saddle that they may be advanced to drilling with arms, and can begin their real instruction as troopers. Of course, it is not to be expected that these school paces should be ridden as yet in perfect form, but the men must understand what these lessons are intended for, and the effort to get the correct bend should be recognisable. And we may add that to teach them to rely on their seat and not on their hands suitable exercises with the lance may be introduced even at an earlier period.

As regards the remainder of the squadron, the so-called 'Dressur'* detachment, it is hardly necessary to point out that one can ask of it at least all that can be attained by the remounts and the recruits—that is to say, that by the beginning of February the men and horses should reach the highest point of their purely riding training. Of course, to achieve this they must not be put back every autumn to the very ABC of their work—riding on the bridoon. They must go on with the curb, to which by this time they are accustomed, and in the place of the bridoon work,

* 'Dressur' literally means 'preparation.' We use the term 'breaking-in.' Note the difference.—TRANSLATOR.

individual riding must be encouraged as much as possible.

Only those squads will require somewhat different treatment in which the best men of the second year are being trained on the best horses for the riding of the remounts in the following year. These men will certainly require more bridoon work in the autumn, but even these should be sufficiently forward by Christmas-time to pass on to the bit, so that, in spite of the very high degree of perfection required from their horses, they can be dismissed the school by the middle of February.

From the increased demands made on the individual training of man and horse, it follows as a necessary consequence that a different kind of inspection in equitation will be required to that hitherto in vogue.

The presentation of closed detachments must be restricted as much as possible, and all previous rehearsals of a special inspection programme absolutely prohibited. Horse and rider, since they have been trained individually, must be inspected and judged on their individual merits, not otherwise. In this manner not only is it easier to appreciate difficulties, but good work also has a fairer chance of securing recognition. It needs an expert to bring together the sum of all the performances, and express a fair judgment on the total result. In any case, however, such a judgment will be nearer the truth because it is uninfluenced by 'eye-wash' and mere externals.

Hence we arrive at the conclusion that in the manner we have above indicated the whole squadron can have completed its training in equitation by the middle of February.

That many objections will have to be met and many difficulties overcome before this end is attained goes without saying; but where in human affairs can it be said that this is not the case?

It may be urged that both for horses and men there is a distinct advantage in beginning again every year with bridoon riding.

The action of the rider is easier to control than on the bit, and if once the men take to holding on by the curb, the consequences are much worse than with the former. On the other hand, also, it is easier for the horses on the curb to assume a false bend or poise, or to refuse to go up to their bits, and thus deceive the instructor. Wrong application of the aids with the bit entail worse consequences on the horses than with the bridoon; hence almost exclusive work on the bit requires better teachers and lighter hands, and if one has few of these at one's disposal, undoubtedly a disadvantage will accrue.

It may further be objected that for such a thorough extension of the course of individual riding as I have demanded there is neither time, school accommodation, nor teachers available, and it must be granted that the regulation allowance of three schools per regiment is, in fact, insufficient for the attainment of the required standard by the methods I have in view. Nor will it suffice to allow each training detachment only three-quarters of an hour in the school at a time. Detachments of average strength require daily one hour and a quarter, if the necessary skill in individual riding is to be acquired, and recruit squads even longer. Further, it will not do to exclude recruits who begin early with the side paces and the gallop altogether from the school; on the contrary,

they require to attend it at least once or twice a week.

But with only three schools per regiment, particularly in our northern provinces, these requirements cannot be fulfilled. Four I consider as the least number, and it would be still better if each squadron had its own school, so that difficult animals and backward men could be taken individually, and work on the lunge and circle thoroughly carried out.

Still, all these obstacles can be overcome. With increased practice, comprehension of the management of the bit in military riding would gradually increase both with teacher and pupils, and work with the reins in both hands be usefully employed to facilitate the transition from the bridoon to the bit and counteract the possible evils of riding on the bit alone.

The better training of the Remounts, which will be obtained by the means I have indicated, will in course of time give us better, more obedient, and more pliable horses, and better-trained recruits again will give us a better choice of riders for the young remounts.

Our instructional staff for equitation is thoroughly satisfactory. In this respect the Riding-School in Hanover has done excellent work. We have also amongst our senior non-commissioned officers some excellent instructors.

The necessary time for all my demands can very well be saved if we make up our minds to leave out all superfluities in the daily routine of duty; and as regards the question of school accommodation, it is well within the bounds of possibility for most regiments to provide themselves with a fourth school—eventually even with a fifth—out of their own

financial resources. No investment could be more remunerative. Certainly under circumstances red tape may stand in the way; but when his superiors will support the Regimental Commander, and sometimes without, one will generally find appreciative backing, even from the War Office (*Intendantur*).

If the drawbacks and difficulties in the way of the proposed changes are, as I have endeavoured to show, to be surmounted, on the other hand, the advantages accruing therefrom are so enormous that the former need not be taken into consideration at all. In the first place, as we have seen, better individual horsemanship and more practice in riding on the bit are in themselves advantages which react directly on the War efficiency of the whole squadron. Secondly, the earlier completion of the remount training is a direct gain, for, in case of mobilization, we shall be better able to place remounts in the mobilized squadrons, leaving in exchange older horses behind, which is again an advantage for the training of the recruits destined hereafter to join us at the front. I cannot too earnestly warn against the taking of *all* the old horses into the field. No man can foretell how great the losses will be, but that they will be great admits of no doubt whatever. Nor is it at all certain that future Wars will be of short duration; on the contrary, they may drag on for a very long time. Hence it is absolutely indispensable that suitable horses for recruit training should be left behind, even if the marching out strength per squadron should be reduced by a file or two—it cannot be many in any case. For the rest, the quicker and better training of the recruits will be all to the good in case of War breaking out, as one will be able to detail men for the field squadrons

towards the close of the winter season—*i.e.*, some weeks sooner than under the old system; and finally the proposed procedure brings with it an enormous gain of time in the training of the whole arm.

To begin with, we gain in winter the months from the middle of February to the beginning of the Drill Season (April). This time can be devoted to direct training for the demands War must make upon us. We can practise again, and confirm the men in the fundamental principle of dressing in motion, the exact squareness of the horses to the alignment and rallying, with which one had already commenced in the early months of winter, before being driven into the schools by frost and snow; and, further, take advantage of fine days and similar circumstances to practise men in taking jumps, scrambling, etc., the development of the regulation drill gallop (fifteen miles an hour), whilst still maintaining the control and standard of equitation for which the school training is specially adapted. The winter exercises in field service duties, which, as long as they are allowed constantly to interrupt the formal lessons in equitation, do more harm than good, can be postponed to this period, when the recruits will now be able to take part in them—a point of essential importance in case War breaks out. Above all, the time thus saved must be devoted to individual riding and single combat.

Our Regulations (Sections 129 and 324) lay special stress on this latter point, and in most regiments it is constantly practised. The results, however, are sometimes questionable, and many Squadron Commanders are of opinion that such training can be overdone. Nor is this view without foundation. If single combats are carried out in the regulation way on

imperfectly broken horses, the horse is not only spoilt, but the rider also, and a clumsy rider will very soon make a good horse hard in the mouth and refractory.

Now, since we have neither ideal horses nor riders at our disposal, there is much danger in overdoing these exercises, because the method of their execution is often thoroughly unpractical. The combatants ride round one another in unnatural circles, one retreats, the other pursues, and both tear at their horses' mouths to turn them sharply about, all things which, except the latter, they never do in action.

Nor should we overlook the really imminent danger which lies in teaching the men to run away before an opponent. Few of them are 'Horatios,' and if, in fact, they once turn about, it is, to say the least, highly problematical whether, in a real fight, they will ever stop again. In the field matters are very different. If one has but one adversary, one tries to ride him down, and, if unsuccessful, then after one turn about both get locked together, turning only on the fore hand; and the man who turns a second time can only trust to the speed of his horse—he has given up the fight.

Such duels are rare indeed; in most engagements the man fights between crowds of his own comrades and the other side, in wild confusion, under clouds of dust. He must attack at one moment to the right, at the next to the left, and guard himself. The essential here is not so much the skilful use of the lance, as complete command over the horse, and the determination to *kill*, which must rise to the height of *fanaticism*. He who can twist and turn his horse by his weight alone, without dragging at its mouth, whose arm does not tire, and who can make sure of striking what he aims

at, even at speed, and with the energy born of hatred, thinking only of destroying his enemy, never on retreating—he alone can hope to remain the conqueror; but such a one very soon learns all that is practical in the use of sword or lance.

The exercises in single combats, therefore, must be based mainly on preparatory practice, intended to strengthen the arm, give command of the weapon, heighten the man's energy, and, above all, aim at securing the most perfect harmony between man and horse by constant exercise in those forms of individual riding which are really needed in the fight: the rapid turning about of the horse; serpentining between, and cutting and thrusting at, different objects in varying directions, as far as possible without reins, and never according to a prescribed formula.

The actual combats between squads should follow only when considerable excellence in these preliminary exercises has been attained—*i.e.*, for recruits—about the end of the summer, before the manœuvres; and they should always be kept down to the lowest limits, and then only carried out in thoroughly practical form—*i.e.*, between squads, and not larger detachments. I believe that in this way a far higher standard will be reached, and with less damage to the horses than is possible under existing conditions, in which one generally begins with single combats, man against man, at the very commencement of the drill season. In any case, we shall at least obtain this advantage—that the work to be done in the latter will be materially reduced if the exercises I have suggested are begun already in the winter months.

The more the men have learnt to ride with a light hand on the bit, the greater command they possess over

their lances—thanks to more constant practice—and the more thoroughly they have been grounded in the principles of direction, pace, alignment, and rallying. Further, the more quietly the horses move—and even at rapid paces have learnt to carry their heads not too high, with a firm bearing on the reins—the easier it will be for the Commander to drill his squadron, and to eliminate all the plunging and surging in movement which is fatal to all excellence in manœuvring.

The drill season can thus be cut down, and the time thus saved devoted to field service practices and riding across country, because the whole system, thanks to this considerable saving of time it effects, enables one to extend the education of man and horse over the whole year instead of confining it to the winter months.

Though every efficient squadron possesses a considerable number of horses that do not require six months' practice in 'shouldering in,' and in 'collected paces,' on the other hand, everyone has some horses that do urgently need 're-making,' but which one has to entrust to inferior riders, because the better ones are all needed for the remounts and young horses.

This is a consequence of the whole system in which the training of the horses and of the men eventually react on one another. There will be remounts which need correction, and horses ridden by recruits to be cured of acquired bad habits; and on my system there will now be time and opportunity to hand these over, say from the beginning of February, to non-commissioned officers and the better riders, either by forming them in a special squad or entrusting them to individuals, and the process of re-making the horses can be continued throughout the whole summer, for now there will be ample time.

On the importance of this latter point I would especially insist. If this work of equitation ceases for the whole summer, and the difficult horses are kept incessantly at drill and field service, it is inevitable that their defects will develop and become more firmly fixed; hence one will never get a good average of well-broken horses in the ranks. That some of them must always be taken for drill goes without saying; but the point is, that from February onwards, and throughout the summer, they should be constantly taken in hand and corrected by good riders. If this idea is applied with thoroughgoing energy, particularly with the young horses—even if it entails at first a diminution in the number of files on parade—the number of difficult horses in the squadron will soon show a most encouraging diminution.

To all these advantages there comes yet another, to my mind even more important. According to established custom, after the inspection in riding on the bit which forms the conclusion of the winter's training, the whole squadron is completely reformed before it begins the drills. The new exercises in unaccustomed surroundings are begun by the men on strange horses, to which they have had no opportunity to accustom themselves. This drawback can be obviated, if the squadron is definitely made up already in February—*i.e.*, after the close of the purely equitation course. The men can now ride the same horses in the school on the drill-ground, and in the country, which they are to retain throughout the summer, and the squadron will commence the drill season with much steadier ranks than would otherwise be the case, particularly if its Commander understands how to make the most of all the advantages his good methods and well-

broken horses secure for him by changing them about individually as circumstances require.

Much, no doubt, may be urged against this proposal, and the expert will hardly need my assistance to recognise the difficulties that await him. But they can be overcome, and their advantages thus secured—and these seem to me the essential points—enormously outweigh the minor troubles that follow in their train.

I do not believe that either thorough or essential changes are needed in our Regulations to adapt them to the principles I have developed. All that is important is, that we should definitely break with the routine of the several courses and inspections.

To constitute a framework, not with a view of developing a fresh network of red tape, I here submit an outline programme of the time-table I suggest, so far as concerns the equitation and the training of the horses in their several periods.

Commencement of Remount training, at the latest, the end of July. It is worth consideration whether the young horses could not be sent to the Regiments even earlier.

Inspection of recruits on the bridoon, and of the Second Ride Second Class shortly before Christmas.

Inspection of the second year's remounts on the bit of the whole of the remount training squads, and of the recruits, concluding with the latter and Second Ride Second Class about the middle of February. Then constitution of the squadron to meet the requirements of the coming drill season.

End of March, or beginning of April, bridoon inspection of the young remounts, in which generally side-paces, collected canter, and the canter and change, may be demanded.

Inspection of the squadron in 'Military riding' (*i.e.*, with arms, and on the curb); preparatory exercises for single combat, thrusting at targets, regulation gallop, riding in the ranks, together with a careful investigation of the teaching received in the school. Inspection of all difficult horses.

Shortly before the manœuvres, inspection of the young remounts on the bit. Inspection of the second year remounts in 'rides' (at the same time note their condition after the drills). Inspection of the difficult horses.

Inspection of single combats.

If one tries, naturally with due regard to local and climatic variations, to adapt the course of training to this plan of inspections, and endeavours to arrange that every man, if only for a few minutes every day, should practise lance exercises to develop his hand and arm, that he should ride every day individually, and every difficult horse should be taken in hand and corrected at once; that the principles of dressing, alignment, and of wheeling, are daily impressed on the men in the school, as I have already indicated; and, if further, wherever it is in any way possible, the men are exercised in boldly riding across country—for which purpose funds to cover possible damage to crops, etc., must be provided by the authorities—then I believe, and base my belief on the result of my practical experience, that not only will a higher standard of training for specifically military purposes be attained, but also a considerable improvement in equitation.

It will be worth while here to add a few words on the methods of training the horses I recommend, for it is precisely on this point that ideas so often divide,

and the most opposite views on this subject find their expression in current literature. To stir up all these controversies is not my object, but I want to state quite generally that it is under all circumstances a downright evil to try to follow out any theoretical system to its logical development, whether the one selected be that of Captain Plinzner* or another's. We have neither such a uniform type of horse nor sufficiently skilled riders as to be able to employ the same method to all indiscriminately.

We must exercise our powers of selection, and find the best method to meet the idiosyncrasies of each man and each horse, always keeping in mind the aim to be obtained. What we want are horses that can use their back muscles, especially in the gallop, with pliable necks, light on the hand, able to turn easily, and safe across country (with special reference to rat-holes, etc., not fences), that do not refuse to quit the ranks, and are not headstrong. To reach this aim with our material, our present riding instructions applied in their spirit, not their letter, are for the present, I think, a sufficiently firm foundation.

A higher standard of riding alone will not, however, suffice. We have seen that modern War makes also increased demands on the endurance of the horses, and, in fact, in two directions: first, on their marching power, and secondly, on their capacity to execute the long gallops at the regulation pace which are indispensable for the manœuvring of large masses and of attacks against modern firearms. That a thorough physical preparation of the horse increases indirectly its endurance has been already pointed out, and when

* Captain Plinzner was Equerry to H.M. the Emperor, and is author of a well-known work on equitation.

exceptional exertions are called for, breeding plays a great part; but great as is the influence of these two factors, the ultimate foundation on which the endurance of our horses depends is the general 'condition' of the animal, and this again is a consequence of the quality of his food and his 'training,' used here in the same sense as in a racing stable. I lay special stress on this question of food, because great demands, both in the way of covering long distances and on the drill ground, can only be met without injury to the horses if they are supplied with a sufficient quantity of nourishment, and our peace-time ration is undoubtedly too small to satisfy this condition. No regiment could maintain itself always at the high pitch of condition we have undoubtedly attained if it did not have recourse to all manner of expedients to increase, at any rate for the time, the amount of the ration. Of these expedients there are quite an imposing number, and since, however desirable an increase of the ration may be, we are not likely to obtain it, it seems to me well worth while to develop them to the utmost.

How this is to be done will depend mainly on the local conditions of each garrison. The point is to make the most of the opportunities each locality offers, and as an example it may be of interest to give my personal experience on this head.

Thanks to the confidence reposed in me by my General and to his liberality, I was allowed to draw the equivalent of sixty rations of oats per day and per squadron in cash, and to handle this money to the best of my judgment.

Since peas, beans, and white American maize—the yellow Hungarian quality is generally considered inferior—were ninepence to one shilling cheaper per

hundredweight than oats, I laid in a stock of them, and was able to give not only an increased weight of ration, but one of considerably greater nutritive value. Thus I gained the double advantage, not only of not being compelled to stint the corn ration in winter in order to save up for the harder work of the summers, but I was able to increase even the winter ration itself. This I consider an essential gain, for horses that after the winter season are well fed and in their full condition are equal to far higher exertions than those which have been kept low, and then fed up for perhaps a very short time before the increased strain is thrown upon them.

The food was thus divided: After the manœuvres, in cases where an increased ration was required, American maize was issued, and the ration improved by half a pound. From about Christmas-time onwards peas and beans were served out, and the amount increased until midway through the Squadron drills, after which it was kept at the same level until the manœuvres. In the end it amounted to the equivalent of 15 pounds of oats, which can be considered as the normal scale for our medium and light Cavalry horses. The peas and beans were soaked for twelve hours, the water being twice changed during this time to prevent their turning sour.

During the manœuvres, according to circumstances, I laid down at suitable points in the district stores of forage, or gave the Squadron Commanders money with which to supply themselves locally, and thus was able to keep up the increase in the ration during the greater part of this trying period.

The experiment was continued for nearly two years, and its results were astonishingly satisfactory. Not only did the visible condition of the horses develop

markedly, and maintain itself throughout the greatest exertions, both during the manœuvres and the Divisional exercises, but in spite of increased performances the numbers of breakdowns and cases of lameness sensibly diminished; the paces were fresher; in short, the material improved most noticeably. Are not these breakdowns, lameness, and dulness in the horses, in the great majority of cases but the consequences of over-exertion of the animals when in a low state of condition? The cases of colic, too, diminished rather than increased, which speaks well for the harmlessness of the foods employed, but may in part also have been due to the fact that both the bulk of the ration and the amount of exertion demanded were only gradually diminished after the manœuvres.

The experiment also showed that most horses would not touch the white beans at all, or only unwillingly, and the best proved to be either the green Smyrna or brown Dutch beans, which for the same weight and nutritive value bulked bigger, for instance, than the peas, and were very willingly eaten. Peas and beans as a ration alone were found not to answer, as the horse misses the mechanical action—irritation of the bowel and stomach—and requires also certain chemical constituents present in oats to assist digestion. Even with the proportion of oats and beans actually used—seventy-six to seventy-eight oats to sixty beans—it was found advisable to increase the 'Rauffutter' ration to replace the missing oat-husks. But to provide this addition there were ample means, since the manure fund of the regiment, or of the squadron, was available; and in spite of the increased ration it became possible to make savings which in a single year sufficed to build a spacious riding-school, and thus contributed

in another way to the training and general efficiency of the squadrons.

In the third year the price of oats fell, and that of the other feed rose; hence, and for other reasons also, the conversion of the oat ration into other more nourishing materials had to be abandoned, although it would still have been possible to maintain a considerable increase in the nutritive value of the food issued. To keep the ration up to approximately the same level as in the preceding year, recourse had to be had to other means.

It was found by experiment that a couple of pounds of straw per horse could easily be saved per day, and again ample funds for a supplement to the ration were available, a measure particularly applicable when the price of straw rules high. This year, too, as the expenditure on the riding-school was closed, the manure fund was also available, and the horses did nearly as well as before.

I would not maintain that similar results are everywhere obtainable. The price of grains varies; the receipts from manure are everywhere different; in some garrisons peas and beans are difficult to obtain; the cost of transport also fluctuates. But all this is no reason why we should not seize an advantage even if we cannot always retain it. Even a few years of more and better food bring about an improvement in the horses, which lasts for a considerable time, and every effort, therefore, should be made to obtain these advantages offered by price variations whenever it is possible to do so.

It is well to call attention to the fact that to accustom horses to the most varied food—rye, barley, wheat, etc. —is part of their indispensable training for War, where

such foods are all they can get, as the experience of our last War sufficiently demonstrated. To this end it is necessary—and I wish particularly to insist upon this point—that our Regimental Commanders should have the utmost latitude of action within certain fixed limits, and should not be dependent on the consideration of the Commissariat, with its innumerable regulations and formal considerations. I consider the objection sometimes urged against me that in the purchase of supplementary foods by the Regimental Commander there would be an opening for fraud and speculation on the part of under officials quite untenable, for a proper system of audit and check could be quite easily devised.

The capacity of the Commander to manage affairs in a businesslike manner can hardly be called in question, and his interest in the matter would grow in proportion to the degree of freedom allowed to him.

Next in importance to the question of food comes the preparation of the horses for efforts of long duration. That this preparation must go hand in hand with the food question is obvious, but apart from this interdependence, it is not possible to keep horses always up to the necessary standard of endurance; for this training not only throws heavy strains on the muscles, joints, and sinews, but on the nervous system of the animal, and in particular attacks the nerves of the stomach if maintained too long. If one wishes to preserve one's material, the horses must be allowed from time to time a thorough rest, during which their feeding must enable them to put on the degree of fat which is requisite for health.

The best time for this rest is about Christmas, during which one can reduce the work to the very minimum,

and feed with 'Rastfutter' hay, maize, malt—dried brewer's—molasses, even potatoes; and also, after reaching the highest points of the training for galloping, there must be a certain relaxation of the strain to give the nerves time to recuperate.

Generally, the course of training must be conducted from the standpoint of what War demands, and never allowed to assume the characteristics of the racing stable, for the purposes of the two are entirely distinct, and this is particularly the case with regard to the gallop.

It is precisely in this respect that the necessities of War are not always seen with sufficient clearness.

We obtain from our troops by means of most careful preparation quite remarkable performances in galloping. I have myself seen whole regiments cover 8,800 yards (5 miles) at the regulation gallop, and the horses at the end of it had still both strength and wind to increase the pace. On such and similar performances we then base our tactical exercises both for the Brigade and Division, and many horses are sacrificed as a consequence. Now, I am the last man to suggest that accurate drill at the gallop is not the crowning work of all tactical education, but it must be accomplished under War conditions, and it cannot be too persistently insisted on that all these tactical pictures and the deductions founded thereon, which we attain in the manner indicated, have practically nothing to do with real War at all.

In these peace exercises we usually ride with considerably less than field service weights, on specially selected and favourable ground, and on specially trained horses. All these conditions are wanting in War. Then horses must carry their full marching-

order kit, and generally they will be entirely lacking in specific training for this fast kind of work. The ordinary pace on the march and patrol is the marching trot; only single patrols have now and again to gallop, the troops as a whole only on the rare occasions when a charge has actually to be delivered. Then, the carefully-selected conditions of the drill ground are generally lacking; and, finally, in all War strength squadrons there are always some augmentation horses and remounts, whose weaknesses must be taken into account if they are not to be broken down at the very beginning of operations, as too often happened in 1870, in which case it would have been better to have left them behind from the first. Thus the galloping possibilities are reduced most considerably, and it is only with these reduced possibilities that the Leader can safely reckon.

That these conditions have a most important influence on tactics is apparent. The question is whether it is worth while to strain towards false ideals, at a considerable cost in horseflesh, when in War they are quite unattainable, and only serve to call up in men's minds false pictures of the reality.

To this I return an unqualified negative. Certainly, it is indisputable that the horses must be trained to gallop for long distances and in suitable poise, and that men should learn to retain a correct seat even in gallops of long duration; that they should have their horses under complete control, and learn to turn and check by the use of the weight of their bodies; but these demands can only be satisfied by continuous practice under conditions which render control over the poise both of man and horse comparatively easy to maintain—that is to say, singly on the galloping

track or in squads, and also as closed tactical units.

Speaking generally, however, such exercises do not need to be extended materially beyond the limit which can be attained by horses not specifically trained to galloping under full marching order weights.

This limit depends on the degree of breeding, the strength and condition of the horses, and may be estimated at the most at two and a half miles for our Light Cavalry, and somewhat less for the Cuirassiers. To exceed these distances seems both superfluous and injurious, particularly when it goes so far as to risk permanent depreciation of the material.

It is far more important, in my opinion, to habituate the horses to gallop with their full marching order weights, under service conditions, and in all kinds of ground; for nothing is more difficult than to preserve the proper rates of movement and keep the ranks closed under such circumstances, as experience even in the manœuvres abundantly shows.

The 'trot' tends always to get shorter, for the regulation pace is already as much as Light Cavalry can manage on the Drill ground; and the gallop, too, falls generally behind the prescribed rate, the reason being, in my opinion, that as a rule the distances demanded are too great, and that we do not drill with sufficient frequency in full marching order, partly to save wear and tear of the kit, but also because with lighter weights we can undertake in the same time more exercises, covering a greater area, than would otherwise be possible without knocking up the horses. Much may be urged in defence of this procedure from the point of view of the training of the Leaders, but the dangers to the true training of the troops them-

selves for War must not be overlooked, and practice under full War service conditions must thus ever remain the keystone of our whole educational edifice.

But it is not only the training in galloping which suffers from this practice of riding light. The preparation of the horses as regards endurance suffers equally, for patrols and long-distance rides are generally undertaken with stripped saddles; it is only for manœuvres and the larger tactical exercises away from the garrison that marching order is carried. To me this system seems hardly rational. Rather, it would appear to me, must such sudden increase in the weights on the horses tend to break them down, and experience confirms this view, for the first day's marches in the manœuvres in marching order tire out the horses to a quite disproportionate degree.

We can never eliminate this evil altogether, for the attempt would entail either marching order all the year round, or the limitation of practical exercises to certain periods of the year only, both or either of which would conflict on the one hand with the necessity of saving the horses as much as possible, on the other with the needs of the military training of the men; but a gradual increase in the loads carried and distances covered seems well within the scope of a practical policy.

The Company Commander, who wishes to get his men fit for marching, increases quite gradually and systematically the weight in the men's knapsacks, till these are scarcely noticed as a hindrance by their wearers, and similarly one could arrange in the Cavalry. In each period we should begin with stripped saddles, progressing onwards to the full kit; but the inspections of tactical units, and the

final inspection in individual combat, should fundamentally be taken in full marching order always, and horses should be prepared gradually for the full weight carried in the manœuvres.

I believe such a system would not only bring about a considerable improvement in the training for War both of men and horses, but would secure us from many disappointments by insuring in the Leaders a true idea of what may reasonably be expected from their commands in the field. Naturally the demands made on them in the inspections must undergo a corresponding diminution.

Only by constantly keeping these points in view and combining them in harmonious progression will it be possible to attain the degree of perfection in the elementary instruction of men and horses which can alone guarantee the highest results in practice.

CHAPTER III

THE TRAINING FOR MOUNTED COMBAT

In the same manner as, in the previous chapter, I have endeavoured to show that in many points in equitation, in the school of individual combat, and in the 'training' both of man and horse, we can, by alterations of method, attain more directly to a possibly higher standard in our performances than is at present achieved, I now propose to consider the tactical education of the troops as a whole, with a view to their best utilization in mounted engagements.

According to the existing Regulations, the chief importance is still laid on the efficiency of the small and medium-sized combinations. Squadrons, Regiments, and Brigades are prepared with the utmost care and attention, but exercises of the larger bodies only take place more or less exceptionally, and on a very restricted scale. The systematic education of the Cavalry does not, in fact, extend beyond the Brigade.

That this state of affairs no longer responds to the changed nature of Warfare follows from all that I have already said, and does not require to be insisted on.

If in War the employment of 'Masses' has become the decisive element, our system of training must be

correspondingly extended, so as to insure the existence of the skill and power needed for their successful application. To this end all, even the most elementary, exercises must be permeated thoroughly by the idea of preparing the troops for united action in adequate numbers; and the relative importance of the several periods of training, the allotment of time to each step in the progression, as well as the exercises themselves, must all be dominated by the same idea.

The foundation of all sound tactical training will remain now, as ever, the school of the squadron. The cohesion of this unit and the ease with which it can be moved is the first condition of its useful employment at the right time and place, and the importance of thoroughness in this branch of training grows with every increment in the total number to be handled. Even more attention, therefore, should be given to squadron drill in the future than in the past.

Next comes the question of regimental drill. Here, as we shall presently see, the chief point is to develop the independence of the Squadron Commander and the tactical handiness of his unit; and as I understand the problem, this calls for a more extended framework, within which the regiment must be prepared, than was formerly the case.

If, even under present conditions, it is scarcely possible in the few days allowed by the Field Service Regulations to train the squadrons up to the requirements of active service, even on a level drill ground, it is obvious that in the future this difficulty will become intensified. It is a question, therefore, to be considered, whether it would not be better to remove these time limitations altogether, and leave it to the Cavalry Commanders themselves to determine every-

where, with regard to local conditions, how to make the best use of the total time available. Where considerable expense would be incurred in bringing in squadrons detached at a distance, the consent of the War Ministry would, of course, have to be obtained.

Brigade drill, however, stands on quite a different footing; it forms, as it were, the preparatory school for the movement of 'Masses,' in which the principle of the employment of the constituent parts of the 'Mass,' whether in 'Lines' or by 'Wings,' has to be inculcated. But as one has now to deal with tactically thoroughly trained bodies, less time is required than for either squadron or regimental drill.

On the other hand, it is most essential that the 'Mass' itself, consisting as it does of several Brigades, should be thoroughly drilled as a Division or Corps, for it is with these units, and not with Brigades, that one has to deal in War, and their duties are so many-sided, and require for their due performance such thoroughly-trained Commanders, that perfection is not to be attained in a few days, which are not even available every year. On this point, in my opinion, there is no room for doubt, and hence it becomes absolutely essential that, if necessary, Brigade drill must be curtailed in order to give to all Brigades an annual opportunity of exercising, as part of the higher units.

It might well be possible to allow a wider latitude to the Brigade Commanders in regard to the choice of time for their special exercises, in which they might be guided by the special circumstances of the locality in which they are quartered, and by the advice of their superiors.

For the exercise of the greater 'Masses,' for which, under all circumstances, troops have to be brought

together from considerable distances, a particular period must, of necessity, be fixed by regulations; but it must be borne in mind that these 'Masses' should not always be formed of equal strength in Divisions of three Brigades, for the danger to the higher education which lies in always working with units of similar composition has already been sufficiently dwelt on. The conditions of War absolutely demand that the higher Cavalry Leaders should be equally at home in handling 'Masses' with certainty and precision, no matter what their composition, and the troops themselves must learn to apply the principles on which efficiency in action really depends under all and every circumstance.

As regards the manner in which the several periods into which the training is divided should follow one another, the question arises whether the squadron, regimental, and brigade drill periods should follow one another as a continuous whole, or whether they should go hand in hand with Field Service Exercises.

This seems to me to need a specific reply, because, as a fact, it is differently answered in different Army Corps.

Where the troops have to leave their garrisons in order to be quartered in the vicinity of the ground specially selected for those purposes, the question of expense must play an important part in the decision; but the principle involved can hardly be affected by these exceptional circumstances, for in by far the greater number of cases the troops can find room to drill either within the district of their own garrisons or on the manœuvre grounds in the vicinity, and in these latter the question of extra cost should hardly stand in the way of an extension of the time allowance.

Hence, if such an extension, due to the intercalation of Field Service practices, really does offer advantages, one could decide in principle in favour of this solution, in spite of all other circumstances; but it still seems to me open to discussion whether it is advisable to make the same principle applicable in equal measure to all the time intervals.

For the squadron drill, which begins with an entirely untrained troop, the conditions are obviously quite different to those in the subsequent exercises, in which the point lies in the working together of units already finished and completed in themselves; and taking these differences into account, we must first examine more especially the case of the squadron.

At the beginning of its drill season, the exertions demanded are comparatively slight. The distance covered either at the trot or gallop is only gradually increased, and the paces are at first kept somewhat below the regulation limits—at least, from practical experience I should recommend that they should be, for the Instructor can control and correct the precision of all movements, and the individual conduct both of man and horse, better at the slower paces than when moving fast. Riders and horses accustom themselves gradually, and hence more easily, to movement in closed bodies, and it is of decisive importance for the whole subsequent course of their training that at the very beginning of the drills this harmony between man and horse under the new and unaccustomed conditions should be secured to the utmost possible degree.

If this point of view be kept in mind, then I think the drills should be continued daily, for, on the one hand, there is no risk of overtiring the horses, and, on

the other, the object is to weld the men into a cohesive whole, and impress on them the essential principles of the elementary tactical evolutions, in order to make them as soon as possible into a combatant unit.

Towards the latter end of the squadron drills, however, the conditions change. Now, it becomes necessary to drive into the whole body a proper appreciation of the several 'paces,' to fit them for long gallops, and to train them for actual combat. At this period I consider it better to interpolate one or more Field Service days, partly because it is of practical moment to press on this side of their training as quick as possible, and, further, because the drills now begin to make very considerable demands upon the horses. These Field Service days afford an opportunity to rest the horses, and thus to prevent small and inconsiderable injuries developing into severe lameness and ultimate breakdowns. Further, a quiet ride in the country gives those horses which have become nervously excited by the unaccustomed conditions of the drill ground a chance of cooling down, and thus saving themselves very materially; and this must certainly be considered as one of the most important functions of the Commander, whether in Peace or War, to keep his horses fresh on their legs, and ready to turn out in good condition at whatever hour the call may sound. Of course, these precautions must not go so far as to endanger the training for service of the squadron, but drill and manœuvre results at excessive cost of horseflesh must be absolutely condemned.

If these reasons speak for an intercalation of Field Service exercises between the drill days, I am further of opinion that the result which would be arrived at

by this system would give a better standard of the drill efficiency of the unit for War than can be attained by continuous drill alone.

With the latter, it is certainly much easier to secure unity, cohesion, and precision in the movements; but we must remember that in War the emergency calling for drill performances may arise after weeks of marching, during which no drill has been practised at all, and our Peace training must take into account such conditions, and accustom the troops to execute with safety and cohesion such drill movement as may be necessary without having practised them day for day.

In still greater degree do these principles apply both to regimental and brigade drills; since in these the demands on the horses are constantly increasing, the need to give them opportunity for rest and recovery becomes even more pronounced.

Moreover, the purpose of these exercises is not so much to secure a single representation of acquired skill in the exhibition of drill evolutions, but rather to develop and confirm in the men an ever-increasing familiarity with the principles of their tactical employment, and this will only then be attained when, as far as possible, these practices are continued during the whole summer, so that the Grand Manœuvres either in the Division or in the Corps form the natural conclusion of the whole series. In the period of combined manœuvres, it is, of course, impossible, in order to save the horses, to lengthen the fixed period allotted to them; but all the more necessary, therefore, does it appear to spare them as much as possible by the introduction of these Field Service days (exclusive of the ordinary 'rest days') during the time of the drill

exercises. In the course of the subsequent considerations, we shall see that not only will our horses gain thereby, but many other important objects of our training be served as well.

Turning now to the subject of these exercises themselves, it must be laid down generally that throughout a steady intensification of the exertions demanded must be maintained, and that the gallop is not to be employed except when, under service conditions, its use would be practicable. Further, whatever the Regulations prescribe must be practised, no matter what the views of the Commanding Officer as to their practicability or otherwise may be. This is absolutely essential to secure a uniform standard of execution throughout the Arm.

Nevertheless, it makes a very essential difference in what spirit the Regulations are approached, for the result will depend upon which points in the training the chief stress is laid, and generally on the character given to the exercises.

In drilling the squadron this point is of less importance. Here, in accordance with the spirit of the whole Arm, it is a matter of formal drill, and nothing more. It is here that the foundation has to be laid for smart, never-failing 'drill,' for the unconditional cohesion of the squadron in itself, and for the certain interpretation of its Leader's views, whether the latter makes use of commands, signals, or merely rides in the required direction.

Here the paces must be hammered into the troops till they become mechanical habit, and the several forms of movement and attack be practised, so that they can be executed in any direction, whether the squadron has been told off or not. No matter how

hasty the rally may be, the troop must charge at the moment and without hesitation.

The only difference that can arise here will be due to the individuality of the Leader, and all are good which lead to the required end, only the Regulations are not quite clear as to practising the charge, and the guiding points might be laid down with rather greater precision.

In the charge against Cavalry cohesion is the first and dominating condition. It must be absolutely impossible for the horses to swerve either to right or left. Accurate dressing and the maintenance of the two ranks come only in the second place. Against Infantry or Artillery, on the other hand, the essential is that every horse should have room to gallop in his own form, so that no crowding or jostling arises, thus giving the horses a chance of avoiding or jumping clear over falling men or animals. Hence, although on the level drill ground the requirements of the Regulations as regards dressing and the maintenance of the two well-defined lines must be attended to, one must remember that it may be impossible to comply with these demands across country and be prepared in such cases to stick to the spirit, not to the letter, of the law.

In both cases it will hardly be of advantage to lay too much stress on dressing and touch. Against Cavalry it is rather a case of jamming the files together by pressure from the flanks, and the men must hold as a vital article of faith that only the closest knee-to-knee riding will guarantee either victory or their personal safety. Against Infantry, on the contrary, the files must be loosened, and every horse go in his normal stride, as in hunting; nor

must anyone allow himself to be squeezed out of the ranks to the rear or remain behind as long as the strength of his horse holds out.

Utmost speed consistent with closely-locked files against Cavalry, a natural extended gallop against Infantry or Artillery — these are the two cardinal points to be observed in attacking. Maintenance of dressing or of the ranks become positive evils if the above are sacrificed to either. These, in my opinion, should be the essentials to guide the decision of superior officers in their criticisms.

With these exceptions the lines for the squadron training are so closely drawn that differences in practice can scarcely arise. The matter, however, assumes quite a different aspect with the regiment, and still more with the higher units.

Here it is not only a case of consolidating the cohesion of the troops by the agency of the discipline of the drill ground, or of teaching the forms of movement and of fighting, although, of course, these points of view cannot be entirely disregarded ; but the essential is to teach the methods of employment of the forms laid down in the Regulations for the combat.

A regiment which can work through the Drill Book smoothly and with precision is still far from being trained for battle, but at the most has merely laid the foundations on which such a training can be subsequently built up. The same applies to a Brigade or Division, each of which has practised and made certain of the execution of such movements as passages of defiles, deployments, attacks, changes of front or of lines, and so forth. All these things are in themselves necessary and useful, but they make no great demands on the skill of the Leaders, only requiring an accurate

knowledge of the book, and a certain degree of routine in the application of its prescriptions; but War makes quite different demands on their ability, and it is for War that we have to be prepared.

First of all, in the purely formal side of the training, stress must especially be laid on those forms of movement which can actually be applied on the battlefield.

Then, the troops must be exercised to apply these forms not only on the drill ground, but over every kind of country. Further, the tactical judgment and independence of the Leaders of all ranks must be thoroughly developed. They must not only learn to act on fundamentally sound principles, but to apply these principles everywhere where circumstances require rapid decision, utilizing at once the tactical advantages the ground may offer, and adapting practically the few forms which can be employed before the enemy in the field instinctively; and, finally, opportunities must be granted to the Commanders to practise the combination of locally separated bodies to a single tactical purpose.

In face of these requirements, it seems to me that our tactical training remains far too elementary in character, and does not tend with sufficient directness towards what is alone possible in War.

The blame for this state of affairs rests by no means only on the shoulders of the troops, but is due to a variety of complex causes which are difficult to disentangle. In the first place comes the passive resistance, that moment of inertia which custom and tradition everywhere oppose to changes, and it is not to be expected that the troops of their own initiative will be able to abandon the accustomed ruts, when more

especially the methods applied in our inspections are not always of a nature to encourage such attempts.

A further cause is to be found in the Regulations themselves. These give no firm foothold for the decision of the question as to what forms and movements really are practicable in War-time, and, probably in the endeavours not to hamper too much the initiative of the Leaders, does not express the principle on which the conduct of the combat is based with sufficient precision to preclude very different opinions as to what these principles really are. Finally, the local conditions of many of our garrisons often create an almost insuperable difficulty for the proper training of the troops over country.

In face of these conditions, we must strike out new paths for our guidance if we do not intend to remain behind the times altogether.

We must first, however, be perfectly clear in our own minds as to which of the Regulation forms are really practicable, and hence require increased attention. Then we must endeavour to formulate the guiding principles for the conduct of an engagement in a manner so clear and definite that they can easily be fixed in the memory, and then work out the best way in which the troops can be thoroughly grounded in their application. Finally, we must acquire a quite distinct grasp of what can be practised over country, and from what points of view such exercises are to be undertaken in order to make them of direct utility in the solution of the problems modern Warfare will set before us.

To clear up the first point it will be best to sketch in its general outline the course in which events succeed one another in an engagement, and then

to deduce the forms of movement which are essentially practical.

Taking the case of Cavalry in combination with the other Arms, at the commencement of the action we find the squadrons in 'rendezvous' formation under cover outside the immediate danger sphere, either on the flanks or behind the general line of battle.

When the moment to act arrives, they advance at a rapid pace, either in closed-up column of route or in any other dense formation which permits of ready deployment in the direction of their allotted target. Often in this movement they will have to overcome difficulties of the ground—defiles and the like, of varying breadth.

Arrived in the vicinity of the field of attack, they deploy into lines of squadron columns, form line to the front, and execute the charge.

In such cases it may often become necessary to secure one's own flanks by forming protective echelons, or to endeavour to surround those of the enemy by corresponding offensive movements.

In the case of Cavalry acting alone, it will often be necessary to form for action directly from column of route, and it will be essential to establish co-operation not only between the advance guard and the main body, but also between columns concentrating from different directions upon the field of coming action.

It is at once evident that for these few manœuvres few and simple formations and movements will suffice, and that, in view of the excitement of the battle-field, only such are, in fact, applicable.*

* As a measure of this excitement the following example may be useful. During the great Cavalry engagement on the plateau west of the Yron brook near Mars-la-Tour a squadron under most

Hence it follows that all complicated movements and changes of lines, and similar formations occurring in the Regulations, may be classed in the category of evolutions intended mainly for disciplinary purposes. On the other hand, we must practise, as thoroughly as practicable, long movements at a rapid pace in the closest formations for manœuvre—*i.e.*, in double and Regimental Columns; changes of direction in these columns by shouldering, passage of defiles, deployments into fighting formations with simultaneous slight alterations in the line of advance; further, measures to secure one's own flanks, or to threaten those of the enemy; deployments to the front immediately out of column of route or after the passage of defiles; the combination of detachments arriving from different directions; and, finally, the charge itself under the most varied assumptions, the transition from the mêlée to pursuit, and rallying in order to attack again in a new direction against a fresh enemy. Naturally, the most rapid deployments out of any and every formation against a suddenly appearing enemy must also be practised, for such surprises are always possible in War-time.

To be avoided, on the other hand, as ior the most part quite impracticable, are all movements of a dilatory nature for the formation of fronts of attack, as well as long movements of manœuvres and consider-

brilliant leadership galloped out in column of troops to threaten the enemy's flank. When, however, the order to wheel into line was given, the men were so excited that it was only with the utmost difficulty that its Captain succeeded in getting three troops to obey, whilst the leading one continued on in its original direction. The Squadron Commander was Rittmeister von Rosenberg, who afterwards became Inspector-General of Cavalry, and the above-mentioned incident was related by him personally to the author.

able changes of front when already deployed into line.

In all these exercises, as a general and fundamental principle, such a grouping of the available forces must be striven for that the units can be employed by 'Wings'; for, as I have endeavoured to point out, it is this form of employment which best satisfies the requirements of the combat and meets the needs of the Commander.

For instance, under many circumstances the Regimental Column can be employed as a practical tactical formation. Thus, if against Infantry or Artillery, it is desirable to attack in many following 'Lines.' The need is at once satisfied if our advance is made in a number of Regimental Columns, wheeled into line to a flank. For a flank attack, if the movement is initiated in a number of Regimental Columns formed to the front and following one another, forming line by a subsequent wheel. In both cases—in the latter after the wheel—one has only to insure that the laterally adjacent squadrons move off together at 'Treffen' (*i.e.*, Line) distance to have all one's Lines complete. Such a formation can secure its flanks with the greatest ease by the retention of closed units, or, by bringing up the rearward squadrons, can prolong its front to either flank. In any case it is preferable to the triple column of troops, which makes all influence of the leader impossible, mixes all units in the charge, and hence would best be left out of the Regulations altogether. Nevertheless, practice in the employment of 'Treffen' (*i.e.*, 'Lines' as opposed to 'Wings') must not be entirely neglected, as under certain circumstances this form may also become necessary.

This tendency to group the available forces by 'Wings' in the larger units from the Brigade upwards must also be extended downwards to the regiment, which represents the fundamental tactical unit of the Cavalry, and those formations for manœuvre which favour the arrangement of its constituent squadrons one behind the other—formations which, at the same time, are both handier and susceptible of more convenient control—must be constantly practised.

That Squadron Columns to the Front hardly meet these demands ideally can scarcely be denied. They are unhandy, render all changes of direction materially more difficult, lose direction and distance very easily, and necessitate complex movements in order to arrange them one behind the other. Already in Brigade formations these drawbacks are apparent, and in larger masses they prove most formidable. The Squadron Column is, in fact, a formation derived exclusively with a view to 'Line' tactics, and for this reason alone they hamper all other demands. There is, however, no compelling reason why they should be retained as the principal working formation for Cavalry, and therefore as fundamentally beyond the reach of criticism.

It seems to me that a formation which would group every two Squadron Columns as a unit would be far preferable. The Regimental Commander would then have only two units to direct, which would maintain their mutual relations of distance and interval more easily than four, could change direction more readily, and form line quicker, and allow of a far easier transition to wing formations and other columns than is possible at present.

The Regulations certainly do not mention this

formation specifically, but, on the other hand, this regimental double column offers advantages for certain circumstances greater than can be found in any of the forms it suggests. It allows in the simplest manner of deployment into 'Lines,' either to the front or flank, the formation of echelons in any desired direction; it is very mobile, easily concealed in folds of the ground, and combines the advantages of reduced depth both as a marching and as a manœuvre formation. As the latter, it is peculiarly adapted to the purposes of large units in close country; for, as already pointed out, it is easy to conceal, and whilst keeping the troops well in the hands of the Regimental Commander, allows also of the most rapid deployments into 'Lines' either

to the front or to the flank. It confers also the same advantages in brigade when the regiments are formed side by side, and is particularly applicable to flanking movements in which it is especially desirable to be able at any moment to develop strong fighting power in the direction of the movement, and after the wheel into line, to be formed in successive lines and protected on the uncovered flank.

It would take us too far at this point to compare in detail the advantages and disadvantages of this or alternative formations. I only desire to indicate in what direction practical progress is possible, even in the domain of formal tactics, without exceeding the limits laid down by Regulations, although it can only

be most desirable that changes in the Regulations* themselves should be forthwith undertaken. I would, in conclusion, only bring forward one point which seems to me of particular importance.

The more this employment of Cavalry by 'Wings' gains ground, the more apparent becomes the advantages of the use of the bugle-calls assigned to the several units, particularly of the regimental call; because when it is used, the regiment or other unit remains as a closed body, unmixed with other units, and hence can be employed as a distinct tactical entity, which is not so much the case when working in 'Lines.'

These sounds are the only ones which never lead to confusion, if they are employed not as cautions only, but as a call on which the unit moves at once, whether in line or in column—preferably the latter—in the direction from which the call is heard. With the call the Commander would have the means of collecting his men behind him, and leading them in the direction he desires, no matter in what degree of order or the reverse they might be, without any verbal commands or instructions.

Used in this sense these sounds—but particularly the regimental call—might become the principal drill and manœuvre calls for the Cavalry.

Thus it appears to me we could achieve a considerable reduction in the amount of practical drill necessary, and the change would tell all the more the more frequently the call was employed, until at last it became ingrained in the very flesh and blood of each man in the ranks.

* This formation has since been adopted, and is almost invariably employed.—TRANSLATOR.

Unfortunately the Regulations do not allow their employment in this sense, but permits them only as cautionary sounds (Section 115, note); but even in this restricted sense they deserve most constant use in drilling, for they are always a means of preventing, in a measure, misapprehensions in the execution of other sounds.

We come now to the second portion of our requirements—viz., how to obtain clearness in the appreciation of tactical principles. Fortunately they are few in number, but it is absolutely indispensable that every Cavalry Leader should most fully have mastered their meaning. No knowledge, however accurate, of the formal prescriptions of the Regulations can in any way compensate for a deficiency in this respect. They are certainly not indicated as 'General Principles' in the Regulations themselves, but may be read between the lines with more or less precision from its several paragraphs.

For Cavalry versus Cavalry.

1. The German Cavalry must always endeavour to attack first in order to utilize to the utmost its superior 'moral,' and to catch the enemy in the act of deployment. If an opening for such an attack is offered, then even the risks of a long preliminary gallop must be accepted (Section 339).

2. The leading lines must *always* be followed by supporting squadrons in adequate numbers (Section 843, and note also Section 346); that is to say, the enemy's Cavalry will always be attacked in two 'Lines,' unless special circumstances compel departure from this prescription.

3. One must always endeavour to keep the last closed Reserve in hand, because in the mêlée the impetus of the last closed body generally decides. One must never, therefore, as long as one suspects that the enemy has still further Reserves in hand, engage a greater number of squadrons than he shows, in order to save up Reserves.

4. Success must be looked for in the vehemence of the onslaught, not in superiority of numbers (Section 313). The greatest importance must be attached to cohesion; hence, unless necessary to surprise the enemy in the act of deployment, the 'gallop' should not be sounded too soon, or the 'charge' too late (Section 339).

5. Outflanking detachments, or troops in the following lines, turn against the enemy's Reserves, or remain in reserve. They must never, except in most pressing circumstances, throw themselves into a mêlée already formed (Section 313). Following Lines must therefore not keep too close to the leading ones—a mistake often committed in peace—as otherwise they are committed to an attack in the same direction. They should therefore keep so far to the rear that they can overlook the line of collisions, and move in full freedom wherever their intervention is most called for. This important principle was always observed by Frederic the Great's Cavalry.

6. One must always try to cover at least one flank by obstacles of the ground or by one's own troops; but having satisfied this condition, then attack on the outer Lines, and endeavour to gain them by previous strategical direction.

7. Superfluous forces, which do not follow the front as supporting squadrons, echelon themselves in general, forwards or backwards of the outer (unsupported)

wing, to protect one's own flank and threaten that of the enemy, also to be ready to engage the enemy's Reserves (Sections 323, 343, 345), or they are kept together as Reserves behind the fighting line, if it is not possible to foresee in what direction they may be required. They must not be too weak.

8. Attempts to surround us made by the enemy are best met by a flank movement on the original line without change of front (*cf.* Section 338). Defensive flanking cover, with the front turned outwards, gives the worst conceivable direction for attack, since in case of failure one is thrown back across the line of retreat of one's main body.

9. Being in 'rendezvous formation,' the leading units are, if possible, sent off for offensive flank movements, as they have the shortest way to traverse. Such attacks only then promise success if they are unnoticed by the enemy—*i.e.*, can be executed under the concealment of the ground—or if the enemy has neither time nor space to counter them. The object of flank attacks is to induce the enemy to use up his rearward Reserves to oppose them, or to induce him to undertake manœuvres before attacking.

10. Those units which are to be committed to the attack simultaneously must never be arranged so that a part follows in echelon backwards—they must always be disposed on the same alignment.

11. In case of a mêlée, which threatens to terminate unsatisfactorily, the Reserves must be put in on a broad front and straight forward, not directed against the flanks. For the longer the line of collision, the less effect do such flank attacks exercise; they are only too often mere blows in the air, and lead to waste of energy.

12. Out of every victorious mêlée one must endeavour, as soon as possible, to rally closed detachments (Section 326). For immediate pursuit only fractions of the available troops will be employed (Section 325). This pursuit, however, must be carried out with the utmost energy, and the complete expenditure of the horses' power—if possible, to the total extermination of the enemy. The forces employed must be adequate for the attainment of this end.

Cavalry against Infantry and Artillery.

1. The attack must be as concentric as possible, and from different directions, to compel the defender to scatter his fire. The units are always to be employed by 'Wings.'

2. If possible, the defender must be surprised, and if Artillery, he should be attacked from the flank.

3. Where a wide zone of fire has to be ridden through, though even against Artillery, successive 'Lines' must be employed, and the less shaken the enemy appears to be the greater the number of such 'Lines' (Section 350). Artillery attacked frontally must be compelled by the leading 'Lines' to change both elevation and the nature of their fire.

4. The result, however, depends less on the Form employed than on the rapid seizure of momentarily favourable circumstances.

5. Only *closed* 'Lines' on a broad front can be relied on for success. Where the squadrons each seek independently for an object of attack, they generally miss it altogether, and to assign each individual squadron a special target will mostly be impossible, for the attack will be launched from such a distance that separate objects in the defender's lines will hardly

be recognisable. Once within the zone of serious losses it will be obviously impossible to undertake those changes of direction which one sees unhappily so constantly in peace. One rides, in general, straight at a long fire line, and penetrates through as far as one can.

6. Such frontal attacks require, generally, reserves on both flanks for security against possible disengaging efforts of the enemy's Cavalry.

7. As the crisis of the engagement approaches, one must close well up on the fighting line, no matter whether one incurs loss or not, in order to be at hand to take advantage of opportunities.

8. Deployment, changes of direction and of front, are only possible outside the principal fire zone of the enemy.

9. The distance between following lines varies according to the nature of the enemy's fire.

To make these principles familiar to the troops must be one's constant care from the commencement of the regimental drill season onwards. At the same time, the subordinate Leaders must learn to apply them independently, even if no direct order reaches them, or if compelled to act on only the shortest indication of the Superior Commander (Sections 330, 333, 348), and this independence of the subordinate must be the more practised the greater the size of the units (Section 317).

To attain this object, as soon as the troops have sufficient mastery of the purely mechanical part of their drill, it will be necessary to append a series of exercises designed both to bring out the essentials of these principles, and, at the same time, to develop the judgment and independence of the junior officers.

Such exercises must hence always be based on a well-defined tactical situation, from which it clearly appears whether the Cavalry is 'Independent,' or whether it is acting on the flank or behind the middle of a fighting line; and the corresponding conditions on the enemy's side must also be readily deducible, and on such foundation, under constantly changing assumptions, as to strength and distance of the enemy, all such movements as changes from one tactical formation to another—flank attacks, deployment from column of route or after the passage of defiles—must be practised. In all these exercises the point at issue must be clearly and comprehensively expressed. When one has attained a certain degree of security in the application of these principles, these exercises must be repeated under conditions of ever-increasing difficulty.

The order for deployment must be given whilst the troops are in rapid motion. Observation, thought, and command when in full gallop have to be learnt; they do not come naturally. The most various movements, without command or bugle-call, must be executed from a message brought by a galloper. The troops will be practised against a suddenly appearing enemy on simple warnings such as 'Against Cavalry,' 'Against Infantry,' or merely on the sound 'Alert,' and pains must always be taken to see that the fundamentally right formation is adopted. In these exercises it must be left to the initiative of the subordinates to judge the situation for themselves, and always move to their proper place in the prescribed formation by the shortest path. Of course, in such movements the first principle is that the troops nearest the enemy furnish the first 'Line'; the remainder fall into their

places as flank coverers, supporting squadrons or reserve.

If, in this manner, we succeed in imparting to the junior Leaders thorough clearness as to the principles of the game, and to make them both quick and skilful in their appreciation of the situation, then the work of education on the drill ground is complete, and the troops are ready for exercises over country. No pains must be spared to separate the purely formal and ceremonial side of drill from the practical field-training. The former keeps always, as I have indicated in the first section, its full value for the creation of discipline and alertness, but leads only too easily to a routine which has nothing in common with the battlefield, and to that poverty-stricken 'schematisimus' to which human nature so readily inclines.

To the formal school of training, which I have hitherto only had in mind, a whole series of exercises must now be coupled, having for their purpose the application of the acquired forms and principles under all circumstances of the ground. But before we proceed to their detail consideration, we must answer the question how far the drill ground only suffices for the purpose of training. Generally, one can subscribe to General von Schlichting's principle—that forms and principles must be learnt in the drill book, but their application in action only in the open country. Tactical exercises on the drill ground, which have not for sole purposes to bring to expression certain formal principles, are always an evil, and mislead the troops. On the other hand, the principles of the tactical employment of Cavalry are particularly suited to representation on the drill

ground because they are frequently of a purely formal nature.

Keeping firmly to these established principles, then, to define the limits of usefulness of the drill ground, we have only to answer the question within what tactical units this formal drilling is still instructive or possible. My opinion is that the Brigade marks the highest limit, as within it all tactical principles find their application, and it is the largest body which can still in any way be handled by drill methods only. In the Division, and still more in the higher units, the strategical element preponderates so greatly that anything approaching real drill is out of the question, and all movements which they can execute are based on a complete command of these principles already. Of course, it is not intended to prohibit altogether the formal working together of these masses at the beginning in order to secure complete control and knowledge of them for further instruction; but one must not delay over these formal movements a moment longer than absolutely necessary, since the real centre of gravity lies in the practical training, and no doubt must be allowed to exist as to which exercises are intended as purely drill and which as practical preparation for War.

Nor would I have it implied that brigade and regimental training should be entirely confined to the drill ground. On the contrary, the exercises over country are absolutely essential for practical training, and form the keystone of the whole edifice; but it seems to me not merely permissible but desirable that a portion of these exercises should be carried out on the drill ground in order to expedite this portion of the work. But all the more energetically must it be

insisted on that the remainder of the programme—the greater part in regard to time—should be executed, as far as possible, in variable ground, and that all exercises of the larger formations should be confined to such ground as we shall have to work over in War; not alone are they by far the most important for the higher tactical education of the Arm, but they cannot be represented on drill grounds at all; their whole essence is too entirely out of harmony with the conditions of a level plain.

That the degree of cultivation existing in the vicinity of the garrisons may interfere seriously with these demands is obvious, and in the absence of the necessary spaces to work over we must fall back on the great training grounds (Truppenübungs Plätze); even the possibilities of these are very soon exhausted. But this, at least, is certain: that it is better to hold these exercises on these training grounds than to confine them exclusively to the drill field. Every effort must, therefore, be made to transfer all exercises of bodies above the regiment to the training grounds, on which one will always find some portion sufficiently suitable for the amount of drill required, and to extend the period of work on these grounds so that in all periods it will be possible to interpose between the drill days a sufficient number of field service days, always supposing that these training grounds offer sufficient diversity of contour, etc., for our purposes. Where this is not the case, then, in spite of the expense entailed by possible damage to crops, etc., suitable ground will have to be acquired. The extra cost of a few thousand pounds cannot be allowed to stand in the way of the adequate training of the Arm which, owing to its numerical strength,

relatively small in comparison with the magnitude of its tasks, is in the last resort dependent for its success on its internal excellence alone.

As concerns the nature of these exercises, with special reference to the larger formations, first of all we must secure, by means of a graduated series, the certain co-operation of the constituent elements and of their leaders. Next, it must be insisted on that, for the further actual practical training, as well as for the purely formal drill, a systematic procedure should be the fundamental principle, so that all who participate in them may become clearly aware of the conditions of Warfare, and the means of dealing with them. It is evident that these conditions must form the foundation of the required system.

As in War these are constantly changing, there seems a certain degree of contradiction in this demand; but in reality this is not the case, for no matter how the situation may vary, there will always be for its proper criticism some one chief point which will characterize the whole procedure, and thus be decisive for the systematic arrangement of these exercises.

The latter can then be divided into two principal groups, according as to whether they are based on the assumption of a Cavalry force acting as an independent unit or in combination with the other Arms. The general conditions in both cases must be clearly brought out, and give them the point of attachment for the further subdivision of the exercises.

Thus, with regard to the first case:

Reconnaissance from a great distance. Deployment of one or more columns out of defiles or in open country. The land in the vicinity of the training ground can here be advantageously employed. It is

not desirable to place the heads of the separate columns at once on the scene of action, using these points as starting-points for the forthcoming exercise. One must give the columns longer marches, and demand that—assisted by a properly-working mechanism for circulating information and orders—they should arrive at the point of action at the proper time, in spite of possible delays or interference on the road. The enemy, whether skeleton or otherwise, must, of course, be handled so that collision occurs within the limits of the training ground.

Transition from the relations of advance (or rear) guard and main body to the order these assume on the battle-field.

Attacks on a railway or hostile post.

Government boundaries form no support for the flanks; these can only be considered as secure when protected by natural obstacles; hence, as a rule, measures must be taken to cover both flanks.

Transition from the tactical to the strategical form after completion of an encounter; pursuit of the enemy with one fraction of the force, and continuation of the operation with the remainder; for the latter, only orders need be issued; but it is a matter of considerable importance how this division of force rendered necessary by the tactical encounters is arranged.

Retreat after a repulse, in one or several columns.

Retirement through defiles.

In the second case:

Selection of position on the battle-field in a proper relation to the fighting line, zone of danger, etc., and reconnaissance to front and flanks.

Advance from a position in reserve to attack on the enemy's Cavalry round one wing of an Army.

Transition from a victorious charge against Cavalry to a further attack against the enemy's flank.

Protection of the outer flank in either case.

Retreat after defeat by the enemy's Cavalry to the protection of one's own Army wing.

Advance for frontal attack against the enemy's line of battle; passage through the intervals of one's own Artillery and Cavalry. Protection of both flanks. Attack upon Infantry, Artillery, or both; disengaging a front attacked by Cavalry; combat against the latter.

Flank attacks against retreating columns; ambushes at defiles.

Of course, it is not intended in the above to lay down a hard-and-fast scheme of instruction, but only to indicate how the work to be done can be systematically arranged, and brought under one point of view, so that the lessons they are intended to convey become impressed on the mind. It is also evident that by the supposed conduct of the enemy, and the strength assigned to him, the utmost variation can be brought about in the grouping and representation of the several conditioning circumstances. In short, these exercises must be taken direct from the most diverse demands of War, and be based, as far as possible, on an assumed general situation. They must never be allowed to descend to mere fighting on horseback backwards and forwards across the training ground, and with often quite unnatural sequence of ideas, having no connection with the natural order of events. It is also most desirable that Infantry and additional Artillery should be made available for their execution.

How far the dismounted action of the Arm is to be represented in these series will be gone into in the next section; but in all cases, whether working

mounted or on foot, the Leader must insist that the troops are handled in accordance with tactical precepts suitably applied in every case to the special circumstances of the given situation; and for this, even on the smallest training grounds, a proper utilization of the features of the country is essential.

The desire to suit the formation to the ground; to carry out turning movements under cover; to find support for the flanks in natural obstacles, so that they cannot be surrounded; to choose the actual field of encounter, so that every advantage of the ground, the direction of the wind, of the sun, of covered approach, etc., all fall to our advantage; to deal with defiles and passes on correct principles; to utilize suitably strong defensive positions—all these must be clearly brought to light, and in the 'Critique' these points must be particularly borne in mind, for they are by no means universally current in the Cavalry, which has a tendency always and everywhere in peace to revert to the levellest ground obtainable. I have seen at Cavalry Division Exercises troops handled without the slightest regard to the nature of the country, and without the fact attracting attention at the 'Critique'; but these are conditions which, thanks to the energetic action of the Inspector-General, we may hope, are now everywhere overcome.

It must, further, be brought out in the clearest possible manner under what conditions the employment of the units by 'Wings' is to be recommended, and under which others their employment in 'Lines' becomes necessary. The principles regulating this matter have already received attention in Book I., Chap. V. The freedom which, as we have seen, is given us by Section 346 of the Regulations must be

utilized to the fullest extent, for it alone answers to the demands of the modern battle-field.*

One last point requires further consideration, which is of considerable importance for Cavalry exercises—viz., the use of skeleton enemies.

In no Arm does the skeleton enemy replace an actual enemy less than with the Cavalry.

If it rides the prescribed paces, then, as a consequence of the ease of movement and rapidity of deployment, it has an unfair advantage; if it rides slowly or halts altogether as a target, it makes things altogether too easy for the other side. Besides, it is a very much easier matter to judge a number of flags correctly than to estimate the actual strength of a rapidly moving body of horse.

* If in course of time, as I fully anticipate, the necessity should become apparent to give further expression in the form of Regulations to the point of view laid down in Section 346, it would certainly necessitate a complete re-arrangement of the whole Regulations, out of which, in that case, other defects might then be eliminated. The following ideas might then be taken into consideration:

1. Fundamental and formal separation of tactical prescription from instructions concerning the methods of training.

2. Simplification of the Regimental drill in the direction of conferring increased freedom of movements to the Squadrons and double Squadrons. Limitations in the application of Squadron Columns, and their partial replacement by more suitable formations.

3. More precise wording of the tactical principles, and their extension to prescriptions as to the use of 'Wing' or 'Line' formation.

4. Re-introduction of the true idea of 'Line tactics,' limitation of the word 'Echelon' to troops overlapping the first line, of 'Reserve' for all held back behind it.

5. The preparation for all instructions for the movement and combat of masses larger than Brigades without reference to any fixed standard of strength.

6. More extended use of the different bugle sounds.

7. Extension of the instructions for dismounted action to cover the employment of several Squadrons, Regiments, or Brigades, and with especial stress on the decisive offensive. (See next section.)

Most movements in practice develop so quickly, and, owing to the ground, the direction in which the dust drives, etc., give such changing pictures, that it is most difficult to judge them accurately when one's self is in rapid motion.

Often the Cavalry Commanders must decide, at least in general, on the instant, strength, tactical distribution, and direction of movement of a rapidly approaching enemy almost hidden in dense dust clouds; in the same instant he must make up his mind with reference to the conditions disclosed by the adversary and the nature of the ground, and issue his orders clearly and intelligibly. The demand is such a great one that both the physical and mental sight even of a born Leader needs constant practice against real objects in order to be in any way equal to it. Hence the necessity for bringing great Cavalry 'Masses'—at least, Divisions—as frequently as possible together to manœuvre against one another, and in such a manner that the strength of the opposing forces remains unknown, which, with a little management, can easily be arranged. If one knows beforehand the precise number of the opposing forces, as with Divisions of uniform composition will generally be the case, the matter is very much simplified indeed, but in proportion it is less practical, a consideration which still further supports our already formulated demand for Cavalry Divisions differing as far as possible in their composition.

Thus, it is clear that the field is wide indeed which opens itself for the practical training of Cavalry as soon as one gets down to the bed-rock conditions which determine success in actual War, and frees one's self of all conventional suppositions. Whether we shall succeed in satisfying the new conditions

which press upon us from every side, taking into consideration the excellence of our existing material, equal to the highest performances, will depend in the main on the support of the superior authorities. For the manner in which Cavalry are inspected decides how they practise and what they learn, just as the way in which they are led determines what they can do.

CHAPTER IV

TRAINING FOR DISMOUNTED FIGHTING

If in the previous pages it has been shown that increased attention must be devoted, in the training of our Cavalry for its mounted duties, to the changed conditions we shall encounter in modern War—if it is to do justice to itself on the battle-fields of the future—it must, on the other hand, be insisted on that the foundation available for such further effort is indeed an excellent one. Our squadrons are, in general, exceptionally well trained, capable of great endeavour, and well in the hands of their Commanders.

It needs, therefore, in my opinion, but a slight change in the direction, the practical consideration of certain new points, and, above all, a wider range of practice in the higher Commands, to attain the very highest mark.

With its dismounted action, however, it is a different matter.

In spite of the increased importance this form of fighting has acquired in modern War, our Cavalry has not as yet paid anything like the amount of attention to the subject that it deserves. Almost everywhere it is treated as of quite minor importance, and many Cavalrymen still close their eyes to the view that, without a training at once as thorough and

earnest for dismounted action as that bestowed on the Arm to fit it for its mounted duties, modern Cavalry will hardly survive the trials it will encounter in the future.

This idea rests on long-standing tradition, which is difficult to overcome. It is not so very long ago that on the rifle ranges some officers caused volleys to be fired in order to get through their cartridges so as to get back to quarters the sooner; but mainly, it is upborne and continued by the fact that in the Inspections the superior Commanders generally treat dismounted fighting as a matter hardly worth their serious consideration, or judge it by false—*i.e.*, too narrow—standards. Further, because in the manœuvres, as in the principal Cavalry exercises generally, situations requiring dismounted action for their due solution hardly ever arise; and lastly, because of the manner in which the whole subject is discussed in the Regulations themselves.

The latter approach the question from a far narrower standpoint than I propose. They lay down quite openly that only under especially favourable circumstances can Cavalry hope to obtain easy and minor results from their carbine fire, and that they are not in a position to enter on and carry through obstinate encounters.

They lay principal stress on the defensive, and practically exclude the combat of larger 'Masses' altogether from their horizon.* In fact, they consider only the minimum conditions which the Cavalry must fulfil if it is not to fall into the background altogether.

The final consequences of modern development, hardly even those resulting from the experiences of

* Section 355, and note 357, 363, 365, 366.

1870-1871, they have emphatically not yet even approached.

Those who have studied the action of our Cavalry in that campaign thoroughly—as I myself had full opportunity of doing—will agree that we seldom had to have recourse to the carbine except on the offensive, as I have pointed out above, and only in the rarest cases did we need them for defensive purposes ; and though in future against overwhelming forces this necessity may arise more frequently, still, as in 1870, this tendency towards a resolute offensive must always stand in the foreground. Nevertheless, the Regulations, in spite of all practical experience and theoretical considerations, lay down that in most cases fire action will be confined to the defensive (Cavalry Regulations, Section 357).

It is quite natural that the troops themselves should not place their ideal higher than the Regulations require ; all the more necessary, therefore, do I hold it to express with all emphasis that *our training must go far beyond the limits prescribed for it officially* if we are in any degree to satisfy the demands that War will make upon us. But for these, I hold our Cavalry thoroughly capable (when trained, understood), and even if they were not, one should never breathe such a suspicion to the men themselves. For should such an impression get abroad, one would dig at once the grave of initiative, daring, and resolution in the execution of all necessary undertakings.

Keenness, the very life and soul of all Cavalry action, can only grow where the troops believe themselves fully equal to all eventualities. The idea, therefore, that Cavalry, even when dismounted, is not equal to any Infantry, must never be allowed to show

its head; rather, the men must be brought up in the conviction that, owing to their longer term of service, absence of reservists, etc., they are, unit for unit, more than a match for the best. Only when they feel this thoroughly will they develop their utmost fighting value. But it is indispensable that they should be thoroughly at home in all forms of the dismounted combat, for only then will they feel confidence in the weapons they carry.

This ideal is as yet far from being attained in our service, and we must break entirely with the existing training and enter on new paths if it is in any way to be attained.

For the tactical subdivision of the squadron, and the elementary forms of skirmishing action, the Regulations afford a sufficient foundation, but their application must be brought home to the men in a totally different manner to that at present in use.

A few weeks after their arrival—at latest the beginning of November—the recruits must be taken out into the country and practised in utilizing all the advantages it offers, both as a group and in firing lines, and at the same time they must be taught with the carbine, aiming, judging distance, etc., always from the point of view of making each man a practical independent shot, without any theoretical mystification or pedantry. Soon after Christmas they must be sufficiently far advanced to commence practice on the range, which must be carried out with the utmost individual care.

A considerable increase in the amount of ammunition is essential to keep the men constantly in practice, so that there are no long pauses between the days set aside for shooting, that these are divided over the whole

year, and that firing at long distances and under field conditions can be carried out on a greater scale than at present. Before the beginning of the squadron drills, the men must be thoroughly at home both in mounting and dismounting for fire action; with this object, vaulting exercises with horses in full kit must be especially practised. They must also have progressed so far in the elementary preliminaries that tactical training of the dismounted squadron can be proceeded with at once; but the individual exercises must be continued throughout the whole year if knowledge of them is to pass over into the flesh and blood of the men.

Special importance is to be attached to field firing, and for this in particular far more ammunition must be provided. In this most important respect Cavalry must be put on precisely the same footing as the Infantry, and be able to practise at real service targets exactly like the latter. But these exercises must not be begun until the men are thoroughly at home in judging distance and aiming, the class shooting is at an end, and the tactical training of the squadron completed.

In aiming practices, low targets, representing men lying down, or well-covered shooting lines at great distances, are to be preferred; but in field firing the targets should be so disposed as to make the typical cases it is desired to represent, in which Cavalry will generally have to employ their firearms on service, sufficiently clear to the men's understanding—such, for instance, as the following:

1. Attack of an occupied position. — Fire opens according to ground at 1,100 to 1,200 yards; gradual advances by rushes to decisive distances, which, with

modern weapons and in open country, may be put at 700 to 900 yards. Development of the principal fire effort at this range, and beating down of the enemy's return fire. After attainment of the fire superiority, rapid advance by rushes, and in larger bodies. These rushes must be covered by the fire of those still lying down, until the point for the commencement of their assault is reached. Meanwhile, advance of the last Reserves, also by rushes, to the last fire position to give the final impulse for assault; assault; pursuit by fire. The strongest development possible of concentric fire consistent with the retention of adequate reserves to carry forward the fighting line.

2. Defence of a position.—(*a*) Obstinate defence; object not to let the assailant come too close; hence from 1,100 yards a considerable development of fire power; continuation of the fight at decisive range, and, according to the result, either pursuit by fire or rapid evacuation of the position with ultimate sacrifice of the rear-guard to be formed by the last reserve. (*b*) Defence without the intention of standing fast, either to gain time or compel the enemy to deploy. Hence, principal fire effort between 1,000 and 1,300 yards, and then gradual break-off of the fight before the enemy can approach too close.

N.B. In practice a favourable position is essential.

3. Surprise fire against marching columns or reserves whilst reconnoitring the enemy's approach, or whilst working round his flank and rear in the battle, or in pursuit without the intention of charging or defending one's self, mainly with the purpose of securing a momentary but considerable moral and material effect, then disappearing and renewing the attempt from another place, hence sudden 'Mass' fire from 1,500 to

not less than 1,000 yards. At the same time, it must be explained that with our present carbine even a nominal effect can hardly be secured at the greater distances. Here I have anticipated the issue of a better weapon, an unconditional necessity for the Cavalry in any case.

All these practices, however, will only then be of value when the officers possess a far more thorough knowledge of musketry and the capabilities of their weapon than is at present the case with us. It must therefore be insisted upon that, first our Regimental Commanders, and then the junior officers, should be ordered to attend the Infantry School of Musketry, in order that they may thoroughly master this new branch of knowledge.

It will be asserted that the time for such thorough training in musketry cannot be found except at the cost of neglecting still more important branches of our service. But from my practical experience I cannot assent to this view. There is ample time, if it is not wasted on unpractical affairs.

Judging distance and the use of ground can be most thoroughly taught during field-service practices, whilst the troops are on piquet, or the squadron at the reserve of the outposts, when the men who do not at the moment happen to be on patrol or vedette often lie about for hours doing nothing. We have then opportunities to take these matters in hand in the most practical manner; particularly the former, on which shooting in the field so essentially depends, and whose importance is so little appreciated by our Cavalry.

The duties in the afternoon can also be much reduced to save time for the same purpose. For instance, let me call attention to the waste of time involved by

lengthy parades for lance exercise. No man can keep on at lance practice for an hour at a time. The consequence is that most of it is spent in standing easy, and therefore wasted. But the object—viz., of gradually strengthening the muscles of the arm and making the man handy with the weapon—can be equally well attained by a couple of parades for the purpose weekly. Perhaps still better, if before every afternoon parade and every mounted duty throughout the year the men are exercised with the lance for a few minutes only. In this manner the muscles of the arm will develop more rapidly and much time will be saved. Similarly, more can be gained by the method of imparting the instruction pursued, if attention is restrained to the thing that the man must know only, and everything superfluous, such as the learning by heart of the names of every portion of the weapon and so forth—at any rate with the recruits—are left out, and at the same time all such opportunities as occur in stable duty, on the march, in the cleaning hour, etc., are made the most of.

Finally, speaking generally, not only is more time than is necessary spent on squadron drill, but also more than is advantageous. If one is constantly drilling for four weeks at a stretch, that is ample, and then there is time for a considerable extension of our shooting training; and if the inspection of the squadron is postponed for any particular reason, then shooting and field service days can be interpolated, which in itself is a very good thing.

If in these ways time for the elementary training for dismounted work and for shooting can be gained, it is still easier to arrange things for the foot training of the squadron as a unit. During the drill period the

pauses to rest the horses which must be granted to them can be utilized, and in the field service exercise the schemes must often be framed so as to afford practice in dismounted operations in suitable ground. For the technical training of the men it is of particular importance that they should be accustomed, with immobile horses, to couple (? knee halter) them rapidly, and with mobile horses in bringing them up or retiring them.

These two essential practices receive far too little attention in the German Cavalry. The chief difficulty of the latter lies in the way in which the spare lances which the man cannot hold fast in his hand fly backwards and forwards when in rapid motion; and the ease with which a lance can be jerked out of the shoe and then trail on the ground can give rise to the gravest disorder, not to mention danger.

It is most desirable that something should be done to remove this evil. The best, perhaps, would be to devise some arrangement by which each lance could be attached to its own horse. If that is impossible, then the shoe must be made so deep that the lance cannot be thrown out. It is obvious that this problem will not be long in finding a solution as soon as attention is directed to its absolute necessity.

The above will suffice to make it abundantly clear that as far as concerns the thorough training of the squadron for dismounted purposes no serious difficulties exist. These only begin when we come to the employment of larger forces, and principally because the Regulations give us no point of support for the purpose, whilst our Cavalry officers themselves are in no way prepared for this branch of their duties. For the employment of the tactical units and the funda-

mental principles governing their use in action we are therefore compelled to lean on the Infantry Regulations. But how many of our Cavalry officers are sufficiently acquainted with these to employ them practically? How is it to be expected that they should be, when nobody expects such knowledge of them?

Hence to prepare for the training of the Leaders, officers of all ranks should be encouraged, whenever time and opportunity offers, to attend the more important tactical exercises of the Infantry. It would be better still if a sufficient number of Cavalry officers were to be attached—Lieutenants to Companies, senior officers to Battalions and Regiments—for suitable periods. But we must be quite clear in our minds that in this way we have at most an expedient to meet a period of transition, which will not suffice as a permanent remedy.

It can never be considered otherwise than as a grave disadvantage when one Arm is compelled to seek the instruction necessary for its practical application in War from the Regulations and parade grounds of another, and more especially when, as in this case, the principles of the Cavalry are by no means applicable without modification to the other.

Actually, the peculiarities and the duties of Cavalry render many variations from Infantry practice essential which require consideration. For instance, the Infantry company is told off in three, the dismounted squadron with mobile horses in two, with immobile ones in three fractions, which are always very much weaker than those of the Infantry, and, therefore, entail entirely different methods of husbanding their respective strengths. I can only consider it, therefore, as a most pressing need, and one which can no

longer be delayed, that the Cavalry Regulations should receive the necessary expansion to meet the different conditions, and that the practical training of the men on foot should be carried on in the same systematic way as their preparation for mounted duties.

For these alterations in the Regulations the principles of the Company Column tactics must, in my opinion, form the general groundwork. A dismounted squadron with immobile horses bring 125, with mobile ones about 70, carbines in the line of fire; a regiment, therefore, from 280 to 500—numbers, therefore, materially smaller than those of a company or battalion respectively, and their power in action is correspondingly reduced. Nevertheless, it will be well, with regard to the conditions of command, to treat the squadron tactically on the same footing as the company, and within these limits the principles governing extensions, depth and arrangement of the units for attack or defence must be laid down clear and distinct in the Regulations.

These principles must be formulated in general on the lines which in discussing the question of tactical direction (Book I., Chap. V.) I have already attempted to develop. They must distinguish clearly between the cases of the detachment acting for itself alone, or with either or both flanks protected, and lay down what distribution of force and apportionment of reserves is of decisive importance, and, therefore, requiring special instructions.

The chief stress, in opposition to all previous prescriptions, must now be laid on the combat of the regiment and the brigade, as those units whose employment will be principally called for in modern

War, and the principle of the offensive must be steadily kept in view. Fights for localities and about defiles require especial attention, and further, the conditions must be laid down by Regulation in which action is to be engaged in with mobile or immobile horses, and how these led horses are to be placed and protected.

The present Regulations pass lightly over these questions, because, as I have pointed out, the standpoint from which they view the matter is fundamentally different. If, however, the increased importance of dismounted action is granted, then these points call for decision, and how they are to be dealt with as a matter of principle cannot be left to the goodwill of the Leader.

A very important defect in the Regulations lies in the uncertainty it allows to exist as to the subdivision of the dismounted squadron, and how the skirmishers on dismounting are to form.

According to Section 54 the squadron dismounted is divided into four troops of twelve files, or if the number of files does not suffice into three troops. According to Section 87, eight to twelve men form a group, two or three groups a troop. In Section 155 the skirmishers of a troop when dismounted, with mobile horses, form one group. How many 'troops' are to be formed is not indicated. 'The skirmishers fall in, in front of or by the side of the squadron, arranged as on horseback.' When working with immobile detachments, then, according to Section 156, the skirmishers form in front or by the side of the squadrons in two ranks, and in how many groups or troops they are to be told off is not specified.

The confusion here cannot be explained away, and

its consequences are frequently manifested. It must be laid down once for all that with mobile horses the dismounted men of a squadron form one troop in four groups, or with immobile ones two troops, also of four groups, and that they always form up in front of the squadrons, each troop in line, and one behind the other. Then everyone should know exactly what he has to do. It is altogether a misfortune that the dismounted squadron and the squadron on foot parade are two entirely different things. The latter is only required for ceremonial, and everything relating to it should be consigned to Part IV. of the Regulations (ceremonial, etc.); whilst the training of the squadron on foot should from the beginning be based on the needs of the squadron dismounted for action. Then there would be unity and system in the matter.

Turning now to the practical education in larger units, it is necessary that the fundamental principles guiding the distribution of the men in attack or defence in the typical kinds of encounter should be taught and practised on the drill ground. The corresponding positions of the led horses must also be represented. As typical situations I would enumerate the following:

Attack on localities, with or without the tendency to outflank.

Attack by surprise, or after preparation.

Defence of a section or of a locality, with known direction of the enemy's advance, or when the flanks may be threatened.

Obstinate defence and maintenance of an isolated locality.

Keeping open the entrance of a defile, and its utilization for a further offensive or retreat.

Deployment for surprise fire action, in order to disappear again immediately.

Combined action of dismounted men with a mounted reserve, to ward off an attack or pursue a retreating enemy.

In all these cases we require not only fundamentally different methods, but the methods themselves will be different according to whether the led horses are mobile or immobile, because in each case the strength of the tactical units is an entirely different one.

These more or less elementary exercises, after the squadron inspections, both mounted and on foot, have been concluded, must be principally carried out in the regiment, which also when dismounted remains the true tactical unit of the Cavalry; but they must be continued by the brigade, in which the employment of the regiments formed side by side—*i.e.*, by 'Wings'—must be represented under most varying circumstances.

It appears to me that in the present state of our training it is exactly these elementary exercises which are the most important, because more than any others they are adapted to make clear and comprehensible the general conditions of successful fire employment. This comprehension, owing to the specifically Cavalry tendencies of our training, is in general almost entirely lacking in our Cavalry Commanders, so that in this direction the tactical education of our officers requires to be built up almost from the ground.

For the rest, these exercises, like the corresponding ones when mounted, form only the basis for the true practical training, which it is not possible to impart on a drill ground, and requires, as a first condition, natural country, with all its changing features. For

this reason it must be insisted on that a part of the regimental and brigade drill season should be spent in the country and on wide open spaces, with great variety of topographical expression. Where such are not to be had, then we must go to the troop training grounds; and hence the desire, above expressed, to extend as far as possible the period spent by the troops in the district or on these training grounds, and which I have based on the necessity for holding annual exercises for the higher units, in which all regiments should take part, finds additional support.

Of course, this does not preclude the necessity of utilizing the surroundings of the garrisons to their utmost.

As regards the arrangement and nature of these exercises, when working on the drill ground they will have to be inserted between the pauses in mounted movements necessary to rest the horses, but they must never on this account be allowed to be treated as of any less importance. When out in the country in larger and continuous movements, this opportunity, from the nature of things, will not be available.

But it is precisely on the larger movements, if possible of whole Divisions, that the principal stress should be laid. In these the fight can be initiated under the most varied conditions, as a consequence of the direction of approach, and after its execution further operations arising out of the resulting situation can be set on foot, which, as we have seen (Book I., Chap. VI.), will generally entail the interaction of dismounted men with mounted reserves.

Such exercises must naturally be laid out quite independently, and must take rank in the programmes for Brigade and Divisional drills on an equal footing

with the others. All Leaders must by degrees learn to control the whole of this section, and find themselves as much at home in every tactical situation on foot as if they were in the saddle.

Hence great importance must be laid on the capacity for exercising independent resolve in all ranks of the subordinate officers; but, above all, they must be made to acquire that relentless tendency to go forward which is the very soul of their service, and generally the best adapted to its tactical requirements. Officers and men must realize that, once dismounted, victory alone can restore to them their horses. These latter must be so disposed that the impossibility of making use of them to break off the engagement springs in the eyes of every man. Only in this way can one get clear ideas: so long as the men do not look on their action on foot as in itself something serious, but are thinking principally of how to get back to their horses, as long as the Leader himself makes his action dependent on this possibility, for just so long will the men fail to put their whole soul into their work, and we shall obtain only partial results, with uncertain handling.

This point of view must be constantly kept in mind throughout the training, and every effort be made to habituate the men to work up to it. But we shall only then succeed in breaking with the old traditions, and in fitting ourselves to meet the changed conditions of War, when the superior officers in their inspections attach *as much importance to the combat dismounted as they now do to the fight in the saddle*, and submit the Leaders to an equally searching and practical examination in each.

Amongst these changed conditions we must include

the intelligent co-operation of the Artillery with the skirmishers, and also of the machine-guns, which latter may be expected to play a considerable part in defence, and also on occasions requiring the sudden development of a great intensity of fire. It is in this connection that lies (Book I., Chap. VI.) the chief importance of the Horse Artillery batteries, and yet in peace they have practically no opportunity to make themselves familiar with its peculiarities.

Instead, we find in the great Cavalry manœuvres the constantly recurring tendency to theatrical display. Batteries accompany the formal drill evolutions of the Divisions—a performance which, in my opinion, has not the slightest practical value, but only subjects the horses to unnecessary exertion, and prevents the Leaders from devoting their attention to the really important elements of their business—the enemy and the nature of the ground. Against all such methods the sharpest protest should be entered.

As long as formal evolutions are being practised, the Artillery has no place on the drill ground; the Cavalry only require its services when the tactical training commences, and the batteries belong to the places they would occupy in War—*i.e.*, in the advance guard, or before the front. But, above all, they must be given opportunity to co-operate in the dismounted engagements, and not merely for their own training—though this, of course, is of importance—but principally for the education of the Cavalry officers, who must learn to employ the power of this Arm tactically, wait for its effect, and utilize it.

That this object can only partially be obtained on the larger exercising grounds, and not at all on the drill grounds, is sufficiently obvious, and it is only

necessary to call to mind the attacks on villages, railway-stations, and the like, which are not usually found on such places to make the difficulty apparent. The keystone, therefore, for our purposes can only be found in the country itself, or in manœuvres, in which the application of every tactical form develops naturally, and finds its justification in the general scheme of operations, and in which the varying conditions are always creating new situations, more or less practical in their nature.

CHAPTER V

FIELD-SERVICE TRAINING AND MANŒUVRES

If in the above sections we have dealt almost exclusively with the training of the Cavalry for actual combat, the cause lies in the nature of things. Victory, whether in the shock of 'Masses' or even in the minor encounters of patrols, forms so much the foundation of every possible success, whether strategical or otherwise, that training with this end in view naturally comes first under our consideration.

But as the chief importance of Cavalry no longer lies in its application on the battle-field, but rather in the solution of the strategical problems encountered in the progress of operations, so its training for battle is no longer the one aim and object, but only one element of its whole preparation for the field. Field service, its true duties in reconnaissance and strategic movements, must all be taken into account as factors of equal importance.

I wish to bring this necessity most especially into the foreground, since hitherto, and particularly in view of the changed conditions of modern Warfare, it has not attracted anything approaching the attention it deserves.

What do we practise in the field-service exercises and in the manœuvres beyond the normal Cavalry

versus Cavalry encounters? Principally, only formal outpost duties in combination with Infantry, the smallest incidents of War on the smallest scale, tactical scouting, and the participation of small Cavalry bodies in the encounter between the combined Arms—all matters which nowadays come within the sphere of the Divisional Cavalry; and, indeed, only then when the divisions to which they belong, or even smaller bodies, are operating independently, for the daily routine of the Divisional Cavalry in the enormous Armies of the present day will be on a most modest scale. At most in the Army Corps manœuvres we may get as far as the employment of Brigades, and perhaps to the shadowing of an enemy's line of advance.

For the most important field of our enterprise, which is to be sought in the activity of the Independent Cavalry, all this is of small account. The real duties of Cavalry in War are only practised in peace on the most confined scale, and often not at all.

Long marches of endurance, independent outposts, attack and defence of localities, the forcing of defiles, passage of rivers, etc., which are held by an enemy's dismounted men, reconnaissances in the widest sense, undertakings against the enemy's communications, pursuit, protracted engagements covering retreats, marches with columns and convoys, finally, the arrangement and execution of wide strategic movements under practical conditions, with accurate computation of time and space, the suitable employment of fighting power for the attainment of the strategical object, and the best strategic introduction of the consciously sought-out combat, all within the limits imposed by the magnitude of the masses handled, are

matters which in future will form the principal sum of all Cavalry activity, but find no place in our scheme of education.

Even the Imperial Manœuvres do not meet the situation, because, in the first place, only comparatively few regiments are annually affected by them; and in the second, the forces are generally from the outset in such close proximity with one another that it is only, perhaps, on the first day that a suitable situation for their strategic employment may be said to arise at all.

Whilst in this manner our whole training is adopted for conditions which in future campaigns can only arise exceptionally, whilst it practically ignores the true sphere of action of the Cavalry, we are working in a vicious circle of forms and misrepresentations which belong to an extinct era of Warfare, and which have long since ceased to have any but the smallest connection with the facts of stern reality.

That things were no better in the period before the last Wars the negative results obtained by our Cavalry in 1866 and 1870 sufficiently prove. In no sphere of their action during these campaigns did they obtain the results the Arm is really capable of—not because the material in the ranks was inferior, but simply and solely because in equipment and training they had lagged behind the requirements of the time. These experiences should have been to us a serious warning not to fall into similar errors a second time; and yet at the present there is most serious danger that a future War may again find us regarding by far the most important branch of our duties from a standpoint which has long since passed away.

The reasons for this state of affairs seem to me of

a twofold character. In the first place, the tasks accruing to the Arm in War do not receive either amongst its own officers, still less amongst those of the rest of the Army, their proper appreciation, because in this direction guidance and instruction are alike lacking; in the second, because most serious difficulties lie in the way of a practical adaptation of our training to modern conditions.

In contradistinction to former times, the tasks which await the Cavalry lie principally in the sphere of strategical operations, and here is the root of our special difficulty.

Great Armies, with their communications, reconnaissances and raids under really warlike conditions—that is to say, with their full allowance of trains and baggage—extended retreats with beaten troops, and the consequent pursuit, can only with difficulty be represented in peace, owing to their expense and the consideration necessary to be shown to local circumstances; but it is precisely in exercises of this description, which might give a really working representation of the conditions we shall be called upon to deal with, that circumstances leave us entirely deficient.

Considering all these conditions, it must be recognised that an ideal method of instruction is practically beyond the bounds of the attainable; but for that very reason, in my opinion, we must pursue with all energy the practically possible, and for the unattainable find the best substitute we can.

The first point which strikes one, and which lies at the bottom of all Cavalry undertakings, but in which no real education ever takes place, is the conduct of patrols, and particularly of those employed for reconnoitring purposes.

Instruction in the matter is certainly universal, and in the writing of reports the non-commissioned officers have considerable practice, but no uniform or systematic method or fixed principle is observed, and the practical performances of the men are subject to no superior check. It is left to the Leaders to apply practically their, for the most part, very nebulous, theoretical knowledge. The young officer in particular is altogether left to his own devices; no one takes the trouble to teach him what is essential, and yet he is expected to instruct his inferiors. The consequences are what might be anticipated. The performances of the patrols in covering distances are generally most commendable, but their reports most deficient. Seldom is a clear distinction drawn between the essential and the non-essential; the most trivial news is forwarded with the same expenditure of horses' power as matter of greatest moment; for most patrol Leaders find it very difficult, for want of an imagination trained by the study of military history, to think themselves into and see the situation as it actually would be in War, and thus to act and ride as the circumstances viewed in this light really require. Most information, poor as it is, is thus obtained in an unpractical manner; and seldom is the degree of instruction realized which the situation affords, namely, to observe keenly and clearly from a distant point, and to carry out the ride in the spirit of the general situation, with a proper calculation of time and space. In this branch of duty change is imperative; the training for scouting must be made the foundation of the whole course, and carried through in a uniform manner. Everywhere it must be based on the conditions of a great War.

How the scientific knowledge necessary for the officers, which forms the basis of this instruction, is to be encouraged and imparted forms the subject of the next section. Here we can only consider what can and must be done within the regiments and brigades, and the following suggestions seem to me to meet the difficulty.

In the winter, as soon as the inspection 'on the curb' is over, the Regimental Commander with his Staff Officer and Squadron Commanders must take the training in hand. He must begin with a definite strategical situation, and from this as a basis, devise corresponding schemes for patrols, which can be worked out in the neighbourhood of the garrison, and then ride out with his officers exactly as in practice the patrols would have to do. Arrived in the vicinity in which contact with the enemy would take place, he assumes what the patrols would see, and lets the class form their own decisions, write their reports, and determine the manner of their further procedure.

In these opportunities he can instil the true principles to be followed, and demonstrate their practicability by all sorts of exercises, until he is convinced that his hearers have completely assimilated his standpoint and method of thought. Particular importance must be attached to the point that the patrol leaders never lose sight of the whole problem, and refer their observations always to this standard, for it is only then that things appear in their true importance; further, it must always be borne in mind up to what time the report must be in the hands of the Leader if it is to be of use for the special operation.

The best information may be valueless if, as in 1870 so often happened, it arrives too late. This the patrol

leader must keep in mind throughout his ride, and thence deduce the time at which his report must be despatched. He must also not only state clearly and precisely what he has seen, but call attention to its probable bearing on the operations, and inform his superior as to any peculiarities of the ground that may influence his future conduct. The object of the ride must be constantly in view, and the report not be overburdened with trivialities about the enemy's patrols and the like, which are often in War of quite negligible importance.

If the Commanding Officer chooses to take the whole of his officers out to these expeditions, he is, of course, free to do so.

The Squadron Commanders now take their subordinates in hand and pass on the instruction in the same spirit and manner, or hand over the matter to the senior lieutenant, if he has been thoroughly instructed for the purpose. In this manner a good uniform system of patrol leading based on sound principles can be attained if the Commanding Officer and his subordinates take all types of patrol duty into the sphere of their practical instruction. The Brigade Commander can use his discretion in its supervision, and give any assistance he may consider necessary.

For the practical training of the men, the foundation must, of course, be found in the squadron. But the teaching must start from constantly changing standpoints, and must be systematically carried on in the higher Commands, which is at present not the case. For though at times such exercises are carried out by the regiments, there is no systematic progress, and no consequent development or representation of the most important elements, whilst higher up no attempt is

even made to continue the instruction further. The influence of the Brigadier is confined in general to the detail education and drill, and though the Division is now and again drilled, it never 'operates' in the strategical sense.

As concerns the education of the squadron, this must from the very beginning be rooted in modern conditions, which in the first place demand the development in the man of the greatest possible individuality. War requires this, as well as the gift of grasp and resolution even in difficult situations, from every Cavalry soldier, from the highest to the lowest. The exercise, however, of such qualities can only be demanded from men who bring with them at least a certain degree of comprehension for the nature of War, and it is therefore of the utmost importance that this comprehension should be developed by suitable instruction. This is often sinned against, because sufficient attention is not paid to such instruction, and also because we still work on out-of-date lines, and without any well-defined principles. In my opinion the recruit must not be overwhelmed with a whole mass of thoroughly unpractical knowledge.

In this period of education one must limit the scope to only the most important and necessary matters, but teach these so that the men understand them clearly and thoroughly.

In the latter years one can build out systematically on this foundation. Thus I consider it quite unnecessary to harass the recruit with long-winded explanations of the military virtues—loyalty, obedience, and courage—or with long lists of different salutes to be given, the recipients of which never come within his ken. It is quite superfluous to teach them the different

parts of the lock of the carbine and their mutual interaction, all about stable duty and guard mounting. Even the theoretical instruction about the organization of the Army, treatment of sore backs, horse sickness, etc., can be reduced to much smaller dimensions than at present. Stable work and guard duties, and so forth, a man learns much quicker and better from daily practice. On the other hand, the time gained by curtailing these matters must be used most zealously to teach him what he absolutely must know for War. That is to say, the simplest principles of Field Service, the composition of mixed detachments, practical shooting, and the exterior treatment of the carbine. The instruction in Field Service, which interests us here the most, can, for the recruits, be kept down to very narrow limits. The principles to be observed in placing pickets, vedettes, etc., he can very well do without. On the other hand, he must know thoroughly those things which he will have to do himself—his duty on patrols, or as bearer of a message, or orderly, also the general connection of the military conditions amongst which he will have to move or to notice amongst the enemy, such as organization of the troops, arrangement of the outposts, relation of the commands, plan and appearance of entrenchments, shelter trenches, gun epaulments, cover, etc.*

He must know, too, that if taken prisoner, he must give no correct answers as to anything concerning his own Army.

It is quite possible to awaken the intellectual faculties of the man and to develop them even within these narrow limits, for the more tersely the facts are stated,

* Instruction with models helps the man quickest ; it is very difficult for the recruit to form a mental picture of military things.

and the more thorough the instructions, the more is his thinking power stimulated, whereas a mass of material to be absorbed merely confuses him. This intellectual pressure of the instructor must not, of course, be limited solely to the lesson hour, but he must seize every possible opportunity to assert his influence. Especial attention is to be directed to habituate the men to carry in their minds verbal messages for a considerable period, and then to repeat them clearly and concisely. It is of great assistance to the intellectual development of the men if they are compelled always to express themselves in grammatically complete sentences, instead of in broken phrases; but I should consider it as a serious error to attempt to teach the recruit the neighbourhood of the garrison, both on the map and on the ground. For in this way one deprives the man of one of his few opportunities which occur to him during his whole service of learning to find his way in unknown country, and thus to develop the instinct of finding his way, which requires considerable practice.

That this faculty is one of the most important in War-time for every Cavalry soldier can hardly be open to doubt. From the same point of view I must enter a protest against the absurd misuse of maps in Peace-time. Of course, the men, and particularly the patrol leaders, must understand how to read a map and find their way by it, and all non-commissioned officers and men out of their first year's service must be trained in so doing, but it is altogether impractical, and therefore a bad preparation for war, if in the interests of better manœuvre results maps are issued in uncounted numbers even on the larger scales, so that not only every patrol leader, but every orderly, can obtain one

for a couple of pence. In War, and particularly in an enemy's country, such extravagance in their issue is obviously out of the question.

The education of the non-commissioned officers must also be systematically set in hand. They should be divided, according to their intelligence and performances, in different groups—two will generally suffice—and the abler men should not only receive instruction for the higher branches of their duties, but must also be rationally taught how to teach others. The non-commissioned officers' school must also receive thorough attention; if it is not conducted seriously, it involves a scandalous waste of time, but if the men receive a really earnest and stimulating instruction, it helps most materially in their intellectual development, and thus reacts most favourably on their military capacity.

As concerns the practical exercises of the squadron, these must, as far as possible, cut themselves free from the spirit of minor tactics, and work as directly as they can towards the requirements of War on a great scale. The destruction of railways and bridges, service on requisitioning duties, etc., must naturally continue to be practised; for though in spirit they belong to minor tactics, they are also required in great Wars. But, above all, one must break with the old one-sided schemes of outpost squadron—officers and non-commissioned officers, posts and vedettes—and the whole subject must be treated on wider lines more in accordance with the changing requirements of active service. The different purposes for which localities are held and utilized in different manners, the use of woods, and waves of the ground, must all be drawn most thoroughly into the scope of the

exercises; and whilst still at squadron work the men must be made clearly to understand the difference between mixed outposts and those of Independent Cavalry, and the chief importance of their whole training in this branch of their duty must be laid on the latter, which is even nowadays not yet sufficiently the case. Further, there must be thorough training in duties of security and reconnoitring at night, and in particular of the defence of cantonments against nocturnal attacks.

In general, it must be clearly understood that all squadron training can only be elementary, and hence must be regarded as a stepping-stone towards the whole field-service training. Where this is left altogether to the squadrons, the men never have the opportunity of becoming acquainted with the conditions of time and space which limit their action when in large bodies. Continuous exercises also, always in the same units, lead only too easily to empty repetition and many misunderstandings. The Squadron Field Service training must, therefore, be limited in time, and as soon as it is completed it must be continued in the regiment, and where the conditions at all allow—*i.e.*, where the garrisons are not too far apart—it must culminate in brigade work.

The 'training'—*i.e.*, the condition of the horses—must by this time have made such progress that marches of twenty to thirty miles for the main body are well within their power. Here a wide and profitable field opens for the Brigade Commander, but it is important in every case—security, screening, reconnaissance, raid, or surprise—to bring out systematically and clearly the essential difference of procedure required, so that all grades of Leaders learn

to realize the fundamental distinction which exists between these various forms of their several duties.

It is also equally important that in each Command operations in several detachments, the regulation of their marching speed, their combined action in the fight, the proper working of the arrangements for collecting information or transmitting orders, should be practised again and again till certainty in their interaction is secured.

It is further necessary to call attention to the necessity, in the interests of a prudent economy of one's forces, to arrange the patrol service systematically, not only as regards the sphere of action allotted to each, but also as to the time of their departure.

Thus, in the march of a single body, the duty of attending to its security may be assigned to the troops themselves, whilst the reconnoitring task is allotted by the officer directing the operations; or, in the case of separate bodies, that each receives its own particular scouting mission, with which, then, the Director refrains from interfering. Otherwise it may easily happen that patrols are despatched for the same purpose by different Commanders, with a corresponding waste of power and the risks of leaving gaps in the whole line.

The Commanders of mixed detachments should also make this need of systematic procedure clear to themselves, and either leave the whole duty of reconnaissance in the hands of the Cavalry, or if they elect to retain certain portions of the work in their own hands they should inform the Cavalry Commander of the fact, and not interfere afterwards with his arrangements, or fail to keep him acquainted with the measures they have themselves taken.

The first course is correct in principle, and will always give the best results when a competent Cavalry officer is kept sufficiently acquainted with the views of his superior, and made personally responsible for results.

Finally, as concerns practice in conjunction with the other Arms, these, too, must lead into different paths from those at present pursued. Detachments of Infantry and Artillery need Cavalry for reconnaissance, security, and orderly duties; but for the Cavalry itself these exercises (of small bodies) have little importance, except in so far as they familiarize the men with the organization and development of the other Armies, and thus learn to form an opinion when viewing these from a distance. The combined action of Cavalry with companies, battalions, and regiments has no importance at all, and is often the merest waste of time. It is much more important to secure practice for the troops in judging the appearance of considerable bodies of Infantry, either on the march or in position, and thence deducing their probable numerical strength.

The former class of exercises will, therefore, be on as restricted a scale as possible, whilst more time is given to the former, and by arrangement with neighbouring garrisons opportunities can often be made. In this way much can be done in the garrison and the Brigade to further the training of Cavalry for the work of a great War, although such exercises can in no way replace the actual manœuvring of large bodies.

It must rather be insisted on that the whole Field-Service training of the Arm can only be brought to its legitimate conclusion in the strategical exercises of large and changing combinations of units. Even the

manœuvres, important as they undoubtedly are, can never replace them. They must, therefore, be placed on a footing of equal importance with the great drill practices of the higher units, since the strategical value of the Arm to the supreme Commander of the Army depends on its intelligent handling in this particular field, and it is here that the difficulties to be overcome are especially great.

Again, system must be inculcated if clearness of apprehension of the several problems is to be produced.

It will be of the utmost importance that baggage and, if possible, trains corresponding to the conditions on mobilization should be employed, and that men and horses should be fed from their contents; otherwise we would only too easily drop into habits of under-estimating the difficulties with which in real War we shall have to contend. But to guard against this self-deception should be the end and object of all our efforts.

It will, therefore, be necessary to calculate distance and the width of areas to be swept over, with reference to modern conditions, and not to work on the scale that sufficed us in France in 1870. The telegraph must also be taken into account, and it must be strictly insisted on that it is only to be used for such reports and in such cases in which it would be available on service. It should, therefore, be laid down beforehand which side is to be considered as in an enemy's country. For the representation of following portions of the Army, flag columns and peace garrisons may be employed, as this is of the utmost importance for the systematic practice of the patrol service.

The formation of territorial Cavalry Inspections

and Sub-Inspections, already advocated above, would give the necessary foundation for our purposes. After finding the Divisional Cavalry necessary on a War strength, the remaining regiments in their several districts could be formed in Divisions and Corps of always varying composition in order to carry out Independent Cavalry manœuvres.

To practise the participation of the other Arms, corresponding arrangements with the adjacent Corps Commanders could be made, so that their annual manœuvres could work in with the Cavalry scheme, but the strategic side should have the preference. Operations would not always culminate in a great Cavalry engagement, but a skilful conduct of the manœuvres in practical country would generally insure such encounters without too great a charge for agricultural compensation.

I do not believe that such a scheme, though it would certainly mean a complete break with established routine, would materially increase the cost of the manœuvres. The damage, now disseminated by the many regiments without any corresponding gain to their efficiency, would now be concentrated on the same district, but the gain to the Arm itself, as well as for the whole Army, would be both decisive and epoch-making.

Great though the importance and necessity of such an arrangement seems to me, yet, as circumstances at present exist, one could hardly count on seeing it applied at once to the whole service, and meanwhile we must search for expedients.

From this point of view, also, we must strive to extend the period allotted for the training of the larger Cavalry bodies to such a degree that Field-Service days

can be interposed between the drill days, in which at least the combined action of masses within the limits of Field-Service exercises can be practised.

The question then arises whether it would not be as well to sacrifice a part of the tactical training of the Divisional Cavalry in the interest of the proposed strategic manœuvres, and whether the advantages we anticipate from these latter might not, at any rate partially, be attained in another manner. It seems to me that to a certain extent this may well be possible, if we can only make up our minds to break with our existing arrangements regulating the present exercises, and order a certain number of garrisons, detailed in groups, to operate one against the other. If this grouping is carried out without reference to Corps boundaries, and the exercises are so managed that the troops need only spend one night out of quarters, during which they can bivouac, very great advantages at very small cost would be derived, because, since in these operations it is not at all necessary to carry them through to their culmination in an engagement, but only to concentrate them for the purpose, when necessary, in a practical manner, and to set all the machinery for reconnoitring, for transmission of orders, and reports, in operation, the damages to cultivation might be kept within very reasonable limits.

An example will help to make the idea clearer. If from the regiments in Metz, Thionville, and St. Avold on the one side, and of those in Saarburg, Saargemund, Saarbrucken on the other, two opposing forces are constituted, it would be easy to draw up a general idea by which each element of the group considered as an Independent Cavalry screen covering the advance of an Army had reached on a given night the points at

which they are actually quartered. The distances of the places named one from another are such that they fairly represent a possible situation in War, and a single day's march might well bring them into collision. Inexpensive bivouac places could easily be found in the wooded districts of Lorraine or elsewhere, and the Infantry in the respective garrisons might represent the heads of the following Armies' columns without undue interference with their programme of training. If the Cavalry march out with four squadrons only per regiment, the fifth can find horses for a part of the train, the point being not so much the number of such waggons provided as the service loading of those that are taken. In the afternoon and night preceding the march, outposts could be established, and the service of exploration commenced. Thus in two or three days a strategic exercise for the Cavalry on a large scale could be arranged at a very low cost and with very little difficulty. Such operations would naturally be conducted by the Inspectors-General of Cavalry, and, as the example shows, they could be generally, if not everywhere, easily organized.*

Since it is essential in all Cavalry exercises to take into account the numbers and distances with which we shall have to deal in future Warfare, it would be

* Taking into account these and similar demands on the Inspectors-General, the question arises whether the time has not come to attach to them permanently officers of the General Staff. Every increase in the number of these officers employed in peace is a great advantage for War, because the War formations require far more Staff Officers to fill the new positions created on mobilization than are employed in peace—a very serious disadvantage. I consider it absolutely essential that each Inspector-General of Cavalry should be provided with a permanent Staff.

a great gain to the Arm if in the manœuvres, in which its action in combination with the other Arms should be taught, this point of view was brought more into the foreground.

Of course it is not intended that the interests of the other Arms should be sacrificed to those of the Cavalry ; the question rather is whether these interests are not identical even for the Infantry ; the importance of minor tactics has fallen very much into the background, and both Infantry and Artillery require far more practice in 'masses.' Detachment warfare can for the most part be quite sufficiently practised in the garrisons, but the opportunities for exercising the large units are far more difficult to find.

I consider, therefore, that it would be of advantage to all Arms if present Brigade manœuvres, with all their superannuated customs, were abolished in favour of more Divisional and Corps manœuvres. The Cavalry, at any rate, would welcome the innovation, for from its point of view these manœuvres could be made far more practical, and it would be easier to arrange schemes for the latter more in accordance with reality.

It is also most desirable that from time to time the Cavalry should have opportunities of practising both pursuit and rearguard action on a grand scale. At present these only arise in the manœuvres with mixed Arms, since in the Independent Cavalry manœuvres they are difficult of representation.

The Director of the manœuvres can also do much to make the operations instructive for the Cavalry, and also to stimulate the interests of all engaged, if he takes care that the demands made upon the Cavalry are kept within reasonable limits. It constantly happens

that patrols are despatched at far too late an hour to make it possible for their reports to arrive in time. Commanders, again, frequently wish to be informed as to the exact position of every battalion on the other side, although they generally know his total force with accuracy, or they want to know the exact strength of the Garrison holding a certain village or locality, as if Cavalry could under any circumstances supply such information; and if at night no sketch of the enemy's outpost line has been handed in, the Cavalry are held to have failed in their duty. All these demands are, in my opinion, entirely unpractical; in War one never has such precise information, and no rational man dreams of wasting the strength of his Cavalry in endeavouring to secure such details. These things are mere remnants of the Paleolithic Age, and only justifiable as an extreme case when perhaps planning a surprise. Further, it is thoroughly unpractical to require under all circumstances complete information as to the progress of an engagement. With modern weapons this is impossible, unless favoured by unusual topographical conditions. Not merely are such demands unpractical, but they exercise a most prejudicial effect, for too accurate and too detailed information get the Generals into bad habits of command, and the Cavalry itself is well-nigh ruined. Certainly, when circumstances demand it, the men must not be afraid to keep well up to the enemy, and bring back intelligence even out of the zone of his fire; but, generally, reliable observations are only made out of range. The Cavalry must learn principally to judge the enemy's arrangements from a distance; they must direct their attention to the essential only, and not waste their time in unneces-

sary side issues. If justice is to be done to these requirements, it is quite impossible to collect all the information the Generals so frequently require. Thus they get in the habit of observing in an unpractical manner, and the whole of this most important branch of their education suffers accordingly. So much is this the case that nowadays the patrol leaders often exchange mutual confidences to one another, as it is practically impossible, owing to conditions of time and space, to obtain the required information otherwise, and they consider it better to get it in this manner than to accustom their men to unpractical feats of riding.

Reconnaissance and its results can only be of value to the training when kept within the limits that the nature of things dictates.

Whilst the constant presence of danger is the characteristic element in which the faculties of observation have to work in War, it is the constant pressure of uncertainty as to the exact movements of the enemy which equally characteristically forms the conditioning element in which the intellectual activity of the Leaders has also to work, and neither one nor the other may be entirely ignored in our Peace-time training.

CHAPTER VI

THE HIGHER EDUCATION OF OUR OFFICERS

The consideration we have devoted in the foregoing chapters to the various fields for Cavalry action opened out by the changed conditions of modern War have shown us what tremendous demands will be made upon the leader of a great Cavalry 'Mass' in the future. He must be an absolute master of the technical side of his own Arm. He must be ready to enter into the spirit of the widest strategical considerations of the Superior Command, and according to circumstances to act in harmony with them on his own initiative. He must know the spirit, the methods of fighting, and the peculiarities of the other Arms, so as to be able to intervene at the right time and place in the action. He must, with swift determination, combine boldness with circumspection; and in addition, he must not only be a bold horseman, but must possess inexhaustible activity of mind and body.

If these are the demands modern War will make upon the higher leaders of the Arm, those which fall on the lower ranks have been intensified in similar fashion; for, quite apart from their bodily and mental qualifications, they will need, for the solution of the various problems with which they will be confronted,

an immensely increased amount of military knowledge and executive ability.

The amount of initiative which will be required in simple Cavalry engagements between the larger groups, and in strategic operations of the Arm, from subordinate leaders has been already discussed above, and it will be clear that only a thorough comprehension of the whole situation will enable the individual to act opportunely when such moments may arrive. It is not merely a general military education which will be required, but greatly increased endurance, boldness, and, above all, a wider understanding for the whole connection of the great operations, and the power of judging a military situation with accuracy, which must prevail through all ranks, down to the leader of an independent patrol. The whole method of observation and the results deduced therefrom will assume quite a different form when managed by Officers who have learnt to understand and to judge operations on a large scale. Without such training only isolated facts will be reported—deductions will not be drawn. There will be no discrimination between important and unimportant details, and the Officer himself will not be able to come to a correct decision as to the direction in which to pursue his mission. But this is exactly what it is most important that all Officers should be relied on to perform. They must understand how, from a given mass of observations, to deduce the strength, bearing, and condition of the enemy in general, to divine the probable connection of his operations, and hence to determine the most important points and directions in which to follow up any available clue.

If an Officer comes upon an outpost or an occupied

position, he should be able from the indications on the spot and from his map to determine where the flanks are likely to rest, and hence on what point to direct his further advance.

If he happens on troops at rest or on the march, he must be able to decide whether it is more important to follow or watch their subsequent movements, or to carry out his reconnaissance in some other direction. He must, in fact, judge what it is of the greatest importance for the superior staff to know when his instructions in face of altered circumstances leave him in momentary uncertainty.

Such illustrations could be extended indefinitely, but the sum of all points to the same conclusion—viz., that a comprehensive military education, and at least a general grasp of the principles of the Higher Strategy, are essential for every reconnoitring Officer. The history of previous campaigns points the same moral by innumerable examples, and how much more frequent must such incidents be in the future.

Let us take the case of the Battle of Gravelotte only—the point was to determine whether the French were still clinging to the fortress or were marching away from it. Not one of the patrols, however, whose doings can still be traced, or whose reports are still in existence, seems to have possessed the comprehension of the situation which would have enabled it to report on what it was of the utmost importance for the Army Headquarters to know. None of them even noted the direction in which the troops they saw were moving—a matter of most vital importance—or estimated the strength of the several encampments, or reported the fact that certain roads were clear, although they were all moving in the immediate

vicinity, and might easily have ascertained these facts had they realized their importance. Thus, because they were uncorroborated, the most important observations led to false conclusions. The point of transcendent consequence—the actual position of the French right flank—could not be determined until hours after the battle had been begun under an entire misapprehension of the actual circumstances. Similar experiences have repeated themselves times without number.

When we now reflect upon the greatly increased importance of reliable information in Modern War, we cannot escape the conclusion that a proper training of our Cavalry Officers to meet their requirements is of vital importance. Their present-day education does not sufficiently guarantee their competence.

The knowledge of the military sciences acquired at the War Schools is on a very modest scale, nor is it, indeed, the business of these schools to give higher education in such subjects. Hence it is all the more deplorable that the higher intellectual training of our Cavalry Officers practically ceases after the War School, because the practical day-to-day duties of their profession furnishes them with nothing which can replace the need for a higher theoretical training. Generally, their attention is absorbed by the smallest of details, which, though each is of immense importance to the efficiency of the whole Arm, are not calculated to widen their intellectual horizon, and in the few great manœuvres in which an Officer might find an opportunity of enlarging his knowledge, he finds himself lacking in the foundation necessary to make full use of it.

The usual course of instruction, in fact, is not adapted

to the needs of the Cavalry Officer, who already in early youth may find himself in situations requiring adequate strategical knowledge for their solution; hence there is urgent need for the supreme military authorities to concern themselves at once both with his theoretical and practical education.

The latter could best be provided for in connection with the development of the Field-Service training of the Troops already dealt with above. The former —*i.e.*, the scientific side—could be most adequately met by the creation of a 'Cavalry School' on the lines of the special Artillery and Engineer Schools which already provide for the further education of the Officers of these Arms after they have spent a couple of years or more in responsible command of men in their own units.

If on the broader foundations of the military sciences —principally those relating to the conduct of operations, to Strategy and Tactics—thus supplied, the Regimental Commanders were to build up by practical instruction, as above indicated, and the whole spirit of the training were modified in conformity with the views therein already expressed, then I consider that, with the admirable material amongst our Officers which already exists, and which for the most part needs only opportunity to prove its value, most important results might be achieved.

Such a school would be most fittingly affiliated to the existing School of Equitation in Hanover. The bright, attractive side of Cavalry life, as we there find it, would be a useful counterpoise to the risk of too much theory, and the district lends itself admirably to practical exercises in reconnaissances and endurance rides.

So long as this most desirable reform remains only an ideal, we must strive to do the utmost we can within the limits of our existing educational system, for the need is urgent, and admits of no delay.

We must devote increased attention to this portion of our Officers' training from the very commencement of their career, and see that they are so far initiated into the nature both of tactical and strategical relations that they may be able, on the one hand, to reconnoitre an enemy in the spirit of the intentions of the Supreme Command; on the other, that they are capable of commanding their units in any given strategical situation.

All means must be strained towards the attainment of this purpose.

One of the first stepping-stones in our progress must be the actual horsemanship of the Officer himself. A man who under every circumstance feels himself firm in the saddle does not need to exert force to fight with or restrain his horse, and has learnt both how to think and command at a gallop, will lead Cavalry and reconnoitre before the enemy with far greater certainty and much better results than one to whom these things are hardly second nature.

Bold and determined horsemanship acts and reacts on all a man's other soldierly characteristics, and forms thus a basis for further progress of the highest order, apart from the fact that it impresses the men most favourably, and induces them to follow with greater confidence.

Hence, even from the standpoint of the higher education, the standard of horsemanship can never be raised too high. Given this, and the remainder can be acquired in the practical day-to-day work of the

unit, in the training of the men themselves, and in the exercises in Field-Service duties, in manœuvres and Cavalry exercises, always provided that these are all conducted in conformity with the spirit of modern operations. But since we have seen this practical duty, as at present carried on, nowhere meets the above conditions, we must find a supplement to it by recourse to systematic training in Field-Service rides, War Games, and Staff Tours, for which, of course, the necessary funds must be provided.

These exercises must be begun in the regiment, and continued through each successive grade up to the 'Inspection,' the sphere of each being enlarged with the increase in the importance of the Command.

But they will only then possess value and importance when based on connected military situations arising from the operations of modern Armies, and afford opportunities to the participants for the solution of problems far above their existing rank, for thus only can their mental horizon be extended. Within the radius of action of his own Command each Officer is already in daily contact with all that it is necessary for him to understand, and in minor tactical situations he has abundant opportunities for training his faculties. It seems to me, therefore, mere waste of time to give him further employment with these matters, and the attempt could only end in depriving them of all interest. On the other hand, the Regimental Officer is seldom if ever placed in positions which would enable him to form any adequate conception of the execution and connection of the greater operations, to realize the importance of the action of the unit within the framework of the whole, or to notice how faults in details, apparently trivial in themselves, can mount up in the

mass until they may jeopardize the success of any given undertaking.

The higher the intellectual pinnacle on which he is placed, the wider becomes his horizon, and consequently his appreciation of the relative importance of each individual link in the chain.

CONCLUSION

If now, at the conclusion of my investigations, we summarize the chief results arrived at, we find the following sequence of thought:

The value of Cavalry in relation to the other Arms has risen materially as a consequence of the whole range of changes introduced into the conduct of modern War—viz., those due to changes in the composition of Armies, to railways, telegraphs, supply, weapons, etc. Its strategical tasks have increased in importance, and on the battlefield new opportunities for successes have been disclosed.

Mounted and dismounted action have now become functions of equal importance. Great results—whether strategical or tactical—can only be obtained by the employment of 'Masses.'

The changing conditions of War demand increased mobility, both organic, strategic, and tactical.

The difficulties of leadership, in consequence of these conditions, have increased very materially. On the other hand, the Cavalry has remained in every respect relatively behind the other Arms, and hence we stand face to face with a whole list of new requirements which it must be the task of our peace-time preparation to satisfy, and of which the following are the most important items:

Increase in the price paid for our remounts.

Considerable increase in our numerical strength, if possible, on the lines of our existing and well-tried organization.

Rearmament of our Cavalry with a 6-millimetre carbine, ballistically equal in all respects to the rifle of the Infantry.

Considerable increase in the amount of ammunition carried both in peace and War.

Improvement in the whole equipment of man and horse.

Formation of horse batteries of four guns, with corresponding increase in the number of batteries; introduction also of a true quick-firer.

Supply of Maxim guns to the Cavalry. Organization of the whole of the supply columns and pioneer detachments required to give the necessary strategical mobility.

Improvement in the method of training horses and men, both individually and for the purpose of securing better conditions in the horses to stand the increased strain of modern operations.

Complete reform of our course of training, both tactical and for field service, to fit us for employment in 'Masses,' and to meet the new strategic requirements. The increased importance of fire-action must be taken into account.

Further development of our Cavalry Regulations, which require not only simplification in many details, but the addition of sections developing the principles of the employment by 'Wings' of the several units, an extension of the prescriptions for the use of fire-action, and more precise formulation of tactical principles.

Rearrangement of the instructions relating to re-

connaissance, security, and the forwarding of reports, in the field-service regulations, with due regard to the employment of cyclists where practicable.

A more systematic, practical, and general education for our Officers; creation of a Cavalry School, in which War should be taught on scientific principles.

Distribution of the whole Arm into independent territorial districts, to be termed 'Inspections' (Corps) and 'Subinspections' (Divisions), which are to be entirely independent of the existing Army Corps.

Annual Cavalry Manœuvres.

Improvement of Discipline 'to meet the demands of modern Warfare.'

This is a considerable list of extreme requirements put together in a few words, and I am well aware that they are not to be obtained by a single stroke of the pen—indeed, it needs a considerable degree of optimism to believe that they are to be obtained at all; but I am equally conscious that sound evolution is only possible when the extremest purpose of our endeavours is clearly placed before our minds, and if we have the courage to recognise openly how far we fall short of the standard the pitiless reality of War demands.

Do not let us delude ourselves with the idea that excellence is to be attained without exertion, or that the path of easy-going reforms, safeguarding always existing interests, will lead us to a certain victory.

Half-measures do more harm than good, and it will not be those races which will survive in the great 'world struggle for existence' which seek only for a harmonious development of all their living forces, but rather those which devote themselves with a single mind to the evolution of the utmost fighting power. It is the triumph of force—fighting power—which con-

ditions the development of all other social interests. If we possess the 'force,' the rest will follow. Whilst, however, we seek to develop by every means in our power the utmost strength of the nation, we must be quite clear in our own minds as to the limits of the attainable. In War, no more than in any other 'act of human intercourse,' is the 'best' ever reached by mortal executants. But the palm of success beckons across the field of destiny to the race which strives towards the highest, and has made the greatest sacrifices and dared the most to deserve it.

In this sense it is the duty of each individual unit amongst us, unconcerned about results or consequences, to work with whole heart and mind in the cause we serve; and the more resistance to be encountered, the greater the obstacle to be overcome, the less may we shun the struggle, for here also the old truth holds good : *Per aspera ad Astra.*

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